

# South County Greenspace Protection Strategy



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Dear Rhode Islander:

In our State, more and more people are deciding to leave urban areas to live in less developed rural areas. Washington, or *South*, County is one of the places that is attracting more people and new growth. A recent Washington County Regional Planning Council report states that in the decade ending in 2000, Washington County's population grew by 12%, while the State's population grew by merely 4%. Unfortunately, one of the consequences of attracting new people and development to the region is the very character and natural resources that make this region so remarkable, are threatened.

This report and associated 'greenspace maps' illustrate what Washington County residents identify as the region's most important natural, cultural and recreational resources and how they think these resources should be protected. It serves as a guide to protect the wonderful natural wealth and rich cultural heritage that makes this region a truly unique place. And, in doing so, it specifically intends to assist our South County partners in their efforts to accommodate growing populations and new growth without sacrificing the environment or their quality of life.

RIDEM is committed to providing Rhode Island communities with the assistance they need to plan for growth while protecting, preserving and restoring the environment. Thanks to the financial support of the USDA Forest Service - Clean Water Action Program, RIDEM, in partnership with the Washington County Regional Planning Council, Rural Lands Coalition and the four Washington County watershed organizations, obtained the professional services of nationally-recognized planning experts, Dodson Associates and Randall Arendt, to assist the participating communities. The work summarized in the following pages reflects the hard work and dedication of many people especially the tremendous effort by dozens of dedicated Washington County residents that volunteered their time. We at RIDEM take great pride in being able to assist residents and their communities in this exciting effort.

Sincerely,

A handwritten signature in blue ink, which appears to read "Jan H. Reitsma", is written over a faint circular stamp.

Jan H. Reitsma  
Director



# Acknowledgements

The success of this project was a direct result of the great dedication and effort of dozens of individuals, organizations and representatives from participating municipalities. The Rhode Island Department of Environmental Management, on behalf of the USDA Forest Service, would like to recognize all the people that participated in this important project and extend our most sincere gratitude for their support. Appendix IV lists the names of volunteers from across the State of Rhode Island that volunteered their time and realized the great accomplishments set forth in this document.

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Washington County Regional Land Trust Coalition: Hopkinton Land Trust, Narrow River Land Trust, North Kingstown Land Conservancy, Richmond Rural Preservation Land Trust, South County Conservancy, South Kingstown Land Trust, Westerly Land Trust  
Narrow River Preservation Association  
Salt Ponds Coalition  
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Wood Pawcatuck Watershed Association  
Audubon Society of Rhode Island  
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University of Rhode Island  
URI Coastal Resources Center/Sea Grant



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# I. Executive Summary

In recent years, a great amount of attention and effort has focused on the search for new ways to protect the remarkable community character and abundant natural resources that give Washington (South) County its unique “quality of place.” In July 2001, the Washington County Regional Planning Council published *A Shared Future: Washington County in 2020* that called for the creation of a regional plan for preserving and connecting greenspaces. The *South County Greenspace Project* set out to meet this need and to unite the diverse goals of local, state and federal players into a set of physical plans and action strategies for protecting the landscape and quality of life of South County.

A broad partnership, funded by the US Forest Service, was formed between DEM, the Washington County Regional Planning Council, the Rural Lands Coalition, four South County Watershed Organizations, Statewide Planning, the Nature Conservancy, Audubon Society, the Rhode Island Historical Preservation & Heritage Commission, URI, local land trusts, Grow Smart Rhode Island, the South County Planners and residents of the nine South County Communities. To ensure a balanced approach to the way communities plan for growth, the *Greenspace Project* worked closely with the *South County Sustainable Economy Project* and shared information in order to identify suitable locations of future growth that do not impact the region’s valued natural, cultural and recreational resources.



*The places that South County residents value the most contain a combination of natural beauty, cultural history, and recreational opportunities: these landscapes were a particular focus of the Greenspace Project.*

The South County Greenspace Project was designed to bring the process by which open space resources are prioritized into a single system, allowing parties with many different perspectives to work together toward a common goal. To do so, it was consciously designed to avoid the sort of “single-issue” open space planning that can happen when plans are prepared by a town board or state agency concerned with only one type of resource. This can lead, for example, to open space plans that do a good job of protecting wildlife habitat while ignoring scenic views. To avoid these problems, the process evaluated three distinct resource types: **natural resources**, such as wetlands, aquifers and wildlife habitat; **cultural resources**, such as historic sites, scenic vistas and rural landscapes; and **recreational resources**, like hiking trails, bike touring routes and water trails. Protection

priorities for each of the three resource themes were mapped first, and then overlaid with each other to identify landscapes that are key to South County’s visual character and quality of life.

The result of this effort was a set of local and regional maps that identify priorities for each of the three principal themes. Together, these provide the information necessary for state agencies, towns, and non-profit conservation groups to make coordinated decisions about open space protection and management. In some cases, the plan determines specific areas that should be protected (e.g. aquifers and riparian corridors) but, it also is meant to clearly show the networks of natural and cultural resources that exist, and to promote a vision of how they could be united into a permanent network of greenways and greenspaces.



## Project Objectives

The *South County Greenspace Project* set out to achieve six overall objectives that would engage local, state, and federal participants in a comprehensive greenspace protection effort:

1. To assist communities to inventory and prioritize natural, cultural and recreational resources.
2. To demonstrate how local greenspace priorities can be linked throughout each town and the region to form continuous corridors of open space that protect resources that cross town boundaries.
3. To explain how each town can more effectively employ land use techniques to protect meaningful open space as land is developed.
4. To demonstrate the multiple values of forestland for recreation, water quality protection, and habitat protection.
5. To identify areas with multiple resource values and promote conservation of landscape character.
6. To clarify priorities of key stakeholders and foster partnerships to achieve shared goals.

## Major Findings

The *South County Greenspace Project* demonstrated how local, state and federal partners could work together to promote sustainable



*The juxtaposition of human settlements with the natural landscape rewards South County residents with a high quality of life. This fragile balance could be lost if current development trends continue.*

growth while helping to save the environment and the quality of life of Rhode Islanders. The project made many important discoveries that are explained in the full report. Some of the major findings included:

1. Forested river and stream corridors and large blocks of forest adjacent to surface waters were identified as critical to protect biodiversity and water quality.
2. Eleven areas of South County were identified in a "Landscape Preservation Plan" that targets protection efforts on limited areas that contain a rich combination of natural, cultural, and recreational resources. These

areas are representative of the traditional landscapes of South County that create its unique "quality of place."

3. Protection of important natural, cultural, and recreational resources cannot be attained through acquisition alone. The application of creative land use techniques must be employed through the local planning process.
4. The study showed that in every town there are areas that are significant, not because of any one resource, but as a result of a unique combination of natural beauty, historic and cultural value, and recreational opportunities.

5. Within the larger context of the Northeastern United States, South County contains an unusual richness of biodiversity that is important to protect. For example, The Nature Conservancy has identified the 200-square-mile forested area straddling the Rhode Island/Connecticut border as the “Pawcatuck Borderlands.” It is one of the largest blocks of woodlands remaining on the Northeastern Seaboard. Similarly, the Rhode Island Audubon Society focuses its conservation efforts on the Queen River Watershed because of this area’s biological wealth. Along the coast, the U.S. Fish and Wildlife Service is working to expand a network of five significant refuges that protect the watersheds of the fresh and saltwater ponds from Burlingame to the Narrow River.
6. South County contains the largest contiguous areas of farmland in Rhode Island.
7. With the exception of the coastal plain south and east of Route 1, virtually all of South County has been designated a sole-source aquifer by the U.S. Environmental Protection Agency. Over 90% of the region’s population relies on these high-quality groundwater sources for drinking water.
8. Protection of drinking water is the most important natural resource protection target for the South County communities. The South County Greenspace Project workgroups quickly reached consensus that it is a priority to protect the region’s water supplies.



*Most of South County is zoned for single family house lots at relatively low densities. The resulting pattern (top) is indistinguishable from development anywhere in the northeast. Commercial development (bottom) follows a similar national model dominated by frontage malls and aging commercial strips.*



*South County’s growing tourist and retirement economy has boosted private conservation of open space, but often with the loss of public access (top). A boom in golf course construction (bottom) has kept land from being developed for house lots, but can have a permanent effect on rural character and quality of life.*



## Key Recommendations

The following recommendations for action represent key ideas developed by the project volunteers working along with the consultants. These actions are intended to help South County achieve the overall project goal of promoting sustainable community development while preserving community character and protecting the environment:

- ❖ Preserve forested riparian corridors, which are the most important links between the region's protected areas, farmland, forests, and key habitats. Forested river and stream corridors are critical, not only as habitat for many species of animals and fish, but for protection of surface water quality and groundwater supplies. The most important of these corridors to protect are the Pawcatuck and its tributaries, particularly the Tomaquag, Wood, Beaver and Queen Rivers; as well as the Saugatucket, Narrow and Potowomut Rivers. Another important corridor connects the salt ponds along the coast.
- ❖ By protecting a relatively small number of key corridors, we can preserve the cultural landscapes that give South County its unique visual character and quality of life. Specific cultural resource protection targets also include preserving and enhancing the Village Centers of Kenyon, Shannock, Carolina, and other historic commercial centers.



*The Pawcatuck River (left), the Peacedale Mills (center) and the South County Bike Path (right) represent the three themes of natural, cultural and recreational resources around which the Greenspace project was organized.*

- ❖ The historic village centers of the region are showpieces in what some may call the 'Living Museum of South County' and represent existing and future growth centers of population and commerce. These historical and cultural centers require special attention in the form of thoughtful land use regulation and preservation efforts.
- ❖ Using the existing South County Bike Path as a starting point, new multi-use trails could extend north and south to connect the historic seaside communities from Westerly through Charlestown to Wakefield, and from Point Judith through Narragansett and Wickford north into East Greenwich, with a potential link to bike paths under construction in Warwick and Coventry.
- ❖ Eleven areas within the region stand out from the rest because they have high concentrations of natural, cultural, *and* recreational resources. The following places were identified as 'Landscape Preservation Focus Areas':
  1. Chapman Pond-Tomaquag-Canochet Valley
  2. Hope Valley/Arcadia
  3. West Greenwich/Nooseneck
  4. Exeter/Queen River
  5. Belleville/North Kingstown
  6. Beaver River Valley
  7. Usquepaug-West Kingston
  8. Charlestown/Ninigret
  9. Perryville/Matunuck
  10. Naarragansett/Pettaquamscutt
  11. Upper Saugatucket



These areas are often overlooked by protection efforts that focus on one theme. Most however, can be largely preserved with a combination of acquisition, private management, and careful development that respects the existing character of each site and its context.

- ❖ The South County Communities should incorporate the resource maps and land use recommendations from this project into their community comprehensive plans and applicable land use ordinances.

## Community Implementation

The South County Greenspace Project succeeded in bringing together many diverse interests and fostered better communication between these groups. As a result, the project generated a high level of public engagement and response. In fact, it has already sparked community implementation before the project was entirely completed.

These actions are summarized here:

- ❖ Every town received a set of maps illustrating a comprehensive and up-to-date inventory of its natural, cultural and recreational resources.. This inventory included a compilation of federal, state, local, and non-governmental data that was previously never assembled in a single set of maps.



*The Greenspace planning process was designed to help towns with a broad range of capabilities work together on a shared Greenspace Protection Strategy. Thus waterfront villages like Wickford (above) were able to identify goals they share with very different communities in the interior.*

- ❖ Local protection priorities were mapped and linked into a regional greenspace strategy. Every community received 10 local resource maps and 16 regional maps, including the underlying geographic information system (GIS) data in electronic format so that it can be easily maintained.
- ❖ The multiple values of forestland for recreation, habitat, and water quality protection were demonstrated on the greenspace maps

and explained in an educational brochure called *Riparian Buffers & Healthy Watersheds*. The Wood Pawcatuck Watershed Association also produced a report on riparian buffers and river access for the watershed.

- ❖ An audit and written report were prepared for each community by Randall Arendt, a national expert, to recommend specific changes to comprehensive plans and zoning and subdivision regulations so towns may preserve meaningful open space and achieve their protection priorities as land is developed. Five communities – Charlestown, Exeter, Hopkinton, North Kingstown and Richmond – are currently working to revise their ordinances to include these recommendations following the lead of South Kingstown, which has adopted the conservation development technique.
- ❖ Towns have used the natural, cultural and recreational resource data to update their local comprehensive land use plans.
- ❖ Six communities successfully used the greenspace project maps to apply for RIDEM open space money in 2002. A total of \$1.98 million was awarded to these communities, which funded the protection of 495 acres.
- ❖ Local land trusts from throughout the region banded together to form the Washington County Land Trust Coalition to promote better coordination and communication across the municipal boundaries.

## II. Greenspace Planning Process and Methods

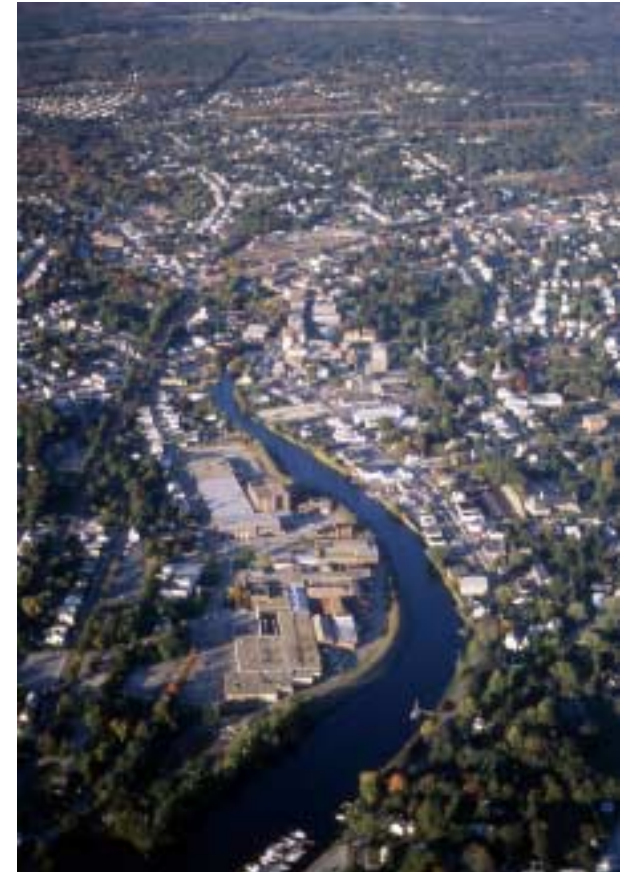
### Background

South County is blessed with a remarkably diverse landscape, a landscape shaped by both natural and cultural forces over thousands of years. Its basic form is rooted in the geology of the region, shaped by the glaciers of the last ice age, and molded since by the action of wind, water, and communities of plants and animals. From the wooded hills in the northwest, rivers and streams drain a series of narrow valleys, and flow through a rich belt of farmland that crosses the county's waist. Backing up behind a chain of stony hills that mark the recession of the glaciers, these streams form a string of ponds and swamps, merging eventually into the Pawcatuck River and flowing to the sea at Westerly. Along the east coast, coves and inlets alternate with the land at the edge of Narragansett Bay; to the south, the barrier beaches and salt ponds support a wealth of plants and animals.

Overlaid with this natural landscape is a cultural landscape of farms, forests, mill villages and town centers that evolved in an intimate relationship with the land in three centuries since European settlement and previous millennia of use by Native Americans. Traditional land uses and settlement patterns were based on local resources of farmland, timber, and water power. Village centers grew in areas with protected harbors, at cross roads, and at the natural center of agricultural or mill districts. The natural systems that underlie these human settlement



*South County is remarkable for its rich diversity of landscapes. Unlike many other areas along the eastern seaboard, it still has large areas of wilderness, such as the Great Swamp (left) and lively town and village centers, such as Westerly (right). In between these extremes lies a rich working landscape of farms and forests.*



patterns were not erased, but rather incorporated into a larger composition that is both functionally stable and beautiful to look at. What was passed down to current residents of South County is thus a rich landscape heritage, one that offers a balance of clean water, a healthy environment, scenic resources, and plentiful outdoor recreation -- all of which adds up to a high quality of life.

Although still largely unspoiled, South County is threatened by the sprawling suburban development that has overtaken areas closer to major cities. This is particularly noticeable because this new development, no matter where it is located, tends to follow the same monotonous patterns, reducing everything to a simple formula repeated over and over. Residential development, for which most of the county is zoned, is for the most part restricted to one



or two-acre lots spread out along broad cul-de-sacs. Commercial development extends along the state highways outside of older town centers, driven primarily by the larger national chains stores with their “big-box” buildings and sprawling parking lots. Old commercial strips are abandoned as new strips form farther out. Meanwhile, Main Streets struggle to attract tenants, and donut shops and self-storage structures replace historic buildings.

For years, state conservation agencies, town governments, and other public and private groups have been working to preserve the South County landscape and to ensure public access to open space. Yet the results of these efforts are sometimes diluted because they are not coordinated by an overall protection strategy, and often proceed on an ad hoc basis as opportunities arise. State agencies and non-profit groups commonly pursue relatively narrow aims, usually focused on preservation of sensitive environmental resources. Meanwhile, local efforts, including changes to zoning ordinances that shape growth patterns, are developed largely through plans that end at town borders. The result has been that large amounts of land have been preserved in South County, but the overall pattern is a patchwork of different pieces, rather than a unified network of protected open space.

The South County Greenspace Project grew out of a realization that surely much more can be accomplished if there is some coordination between agencies, and between what is being



*The incredible diversity of South County's open space resources cannot be experienced within a single town. Only by working together can the separate towns protect the full spectrum of landscapes and recreational opportunities that creates the sense of place and quality of life that attracts people to this unique region.*

done regionally and efforts at the local level. The difficult part was to develop a planning strategy that would be detailed enough to be meaningful for local planning, but simple enough to generate clear regional priorities upon which a county-wide strategy could be based. The answer was a process that began at the local level, using a common methodology to bring each community to the same level of information and understanding. With each town on a common footing, communities, both large and small, were able to confidently evaluate regional priorities and potential action strategies.

### **A Bottom-Up Planning Process**

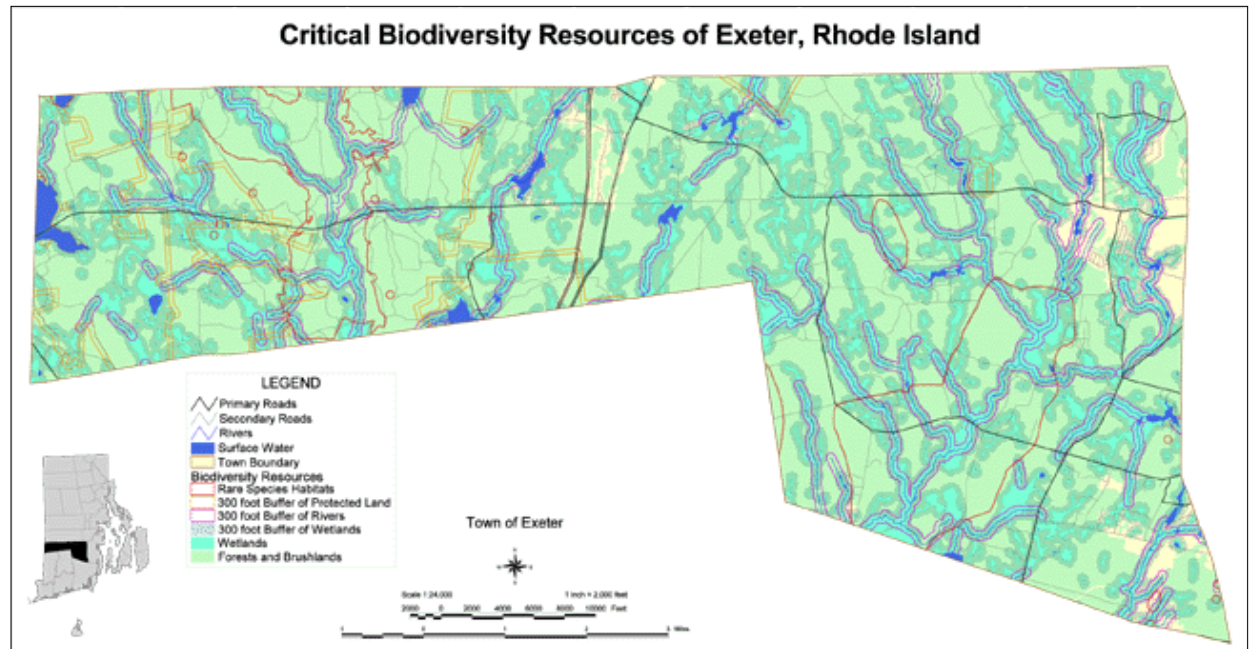
The greenspace planning process was designed to work from the bottom up. Each town went

through an individual process of inventory and analysis, resulting in preliminary maps of Greenspace priorities in each community. These local plans were then compiled into a series of regional inventory and priority plans for review at several regional meetings. The results are designed to provide a detailed, but flexible base of information that can be used by local commissions as well as state agencies to achieve shared goals for landscape protection.

During the regional workshops, it became apparent that agreement on a single set of priorities would be difficult, if not impossible: the final maps are therefore designed to be used and overlaid in different ways depending on the focus of an individual group, town, non-profit, or state agency.

The method used for the Greenspace Planning Process followed a traditional landscape planning model: data about different types of resources were compiled; inventory maps were prepared showing the location and patterns of these resources; then these inventory maps were overlaid with each other to identify those areas and connecting corridors with multiple resource values. The process began with a series of maps prepared by the Environmental Data Center at the University of Rhode Island. This “Critical Lands” analysis produced a series of maps for each town at a scale of 1” = 2000’: base maps with 1995 orthophotography and standard USGS mapping; critical farmland resources, which overlaid cleared agricultural land with prime agricultural soils; critical groundwater resources, showing aquifers, recharge areas and wellhead protection areas; critical cultural, recreational, and aesthetic resources; and critical biodiversity resources, including forest, wetlands, and rare species habitats, along with 300’ buffer of rivers, wetlands, and protected lands. The areas covered by these different resources were overlaid and compared, which allowed for the calculation of their co-occurrence. A final *Composite Map of Critical Resources* was created for each town showing where the overlap of critical resource areas occurred. Three levels of value, representing the degree of overlap, were described: valuable, critical, and very critical.

These maps were invaluable in sharing with local committees the information that is avail-



*The Critical Resource maps prepared by URI's Environmental Data Center at the beginning of the process demonstrated the wealth of information available on the Rhode Island Geographic Information System.*

able on the Rhode Island Geographic Information System, a central depository of maps and data that is maintained at the University of Rhode Island. Based on a review of this information, a greenspace planning methodology was created that regrouped existing data into three themes – natural, cultural, and recreational resources – and combined mapping and analysis in the office with public review and refinement at the local level.

### Public Participation Process

While the actual process varied somewhat from town to town, public participation revolved around a series of four meetings in each com-

munity. **The first meeting** was held as a joint session of the local Planning Board and Town Council. The consultant team introduced the project, presented the critical lands inventory maps, and posted wall-size base maps for review. Attendees were asked to volunteer to serve on a Greenspace Planning Committee, and those that did so were divided into three sub-groups to focus on the three key resource themes. Each of these subgroups then met with a member of the consultant team to review the base maps and existing information, to discuss what additional information would be needed to move forward, and to strategize about how to get it and put it on the maps.



Both local volunteers and members of the consultant team came back to the **second meeting** with additional information, sketch plans, and reports providing information about each of the three resource themes. Each group was asked to present the information they collected, and the consultants led discussion about what conclusions could be drawn and what additional information was needed. Throughout the process the emphasis was on understanding the systems that underlie the occurrence of a particular resource. For example, we want to know not only that a rare orchid has been found in a particular place, but also why it is there. What is the ecosystem that supports that species, and how big is the surrounding landscape upon which it depends? Likewise, if certain structures have been identified as historically significant we want to know not only where they are, but also how do they fit into the larger landscape history of the town? What stories do they tell about the history of the community?

The consultant team returned to the **third meeting** with revised maps of natural, cultural and recreational resources for review by the town greenspace committees. Attendees were led in a discussion of important sites and potential linkages for each of the resource themes. Preliminary overlays were presented that began to explore how the three principal resource themes overlap, and various systems for prioritizing open space values were discussed.



*An extensive series of meetings in each community allowed residents to contribute to the process, and brought together diverse local interests in conservation, historic preservation, and recreation.*

At the **fourth meeting**, the consultant team presented a final draft of each town's resource inventory and priority maps for review and discussion. These were compared with maps of lands already protected to examine potential gaps in important resource corridors and opportunities to incorporate larger resource systems into lands already preserved. Maps showing various ways of prioritizing open space were presented for review, and while no single conclusion was reached we concluded by presenting the landscape preservation approach to using the information. While each town will have to sort out its own priorities, the idea is that those areas that include a balance of natural, cultural, and recreational resources are key to the visual character and quality of life in South County, and represent the common ground where the interests of many diverse groups come together.

As the local process was concluding, the local greenspace volunteers, together with other town officials and interested citizens, were invited to convene at several **regional workshops**. At the first workshop, maps were presented that compiled all the local data into a single inventory for each resource type. Participants broke into small groups to discuss the map results and approaches to setting regional priorities for greenspace protection. For the second workshop, revised maps were presented for review, along with several alternatives for setting priorities for action. Extensive discussion helped determine the final set of inventory and resource priority maps that are found in this report.

As the regional greenspace process proceeded, attention turned to how towns and regional groups could best **implement the greenspace strategy**. As part of this process, Randall Arendt, a nationally known expert in the use of Conservation Design and other techniques that use the development process to create open space networks, prepared an audit of each town's Comprehensive Plan, Zoning Ordinance and Development Regulations. A detailed report was presented to each town at a meeting of the Planning Board. Meanwhile, a final set of local maps was presented to planners in each community, and made available on RIDEM's web site. As towns reviewed the maps and recommendations for local planning and zoning, the consultants worked with the steering committee and the Sustainable Watersheds Office to prepare a series of recommendations that are found in part IV of this report.

## Methods of Mapping and Geographic Analysis

While the process of mapping and analysis generally followed a traditional planning model, the way information is recorded and presented in the final set of maps was designed to encourage an unusually broad approach to identifying open space resources. While there is no “right way” to do this, by explicitly developing separate maps for natural, cultural, and recreational resources, this approach requires development of a much more complete understanding of all three areas than is usually attained. At the same time, the limitations on volunteer time and project budget forced the project to make good use of existing data, with carefully targeted development of additional information. The final content of the maps represents the collective review of all the local committees, which were quite consistent in their reaction and recommendations. As described below, the three primary themes represent an objective perspective and a reasonable consensus about which resources are of most concern to towns as they try to protect the environmental health and quality of life in South County.

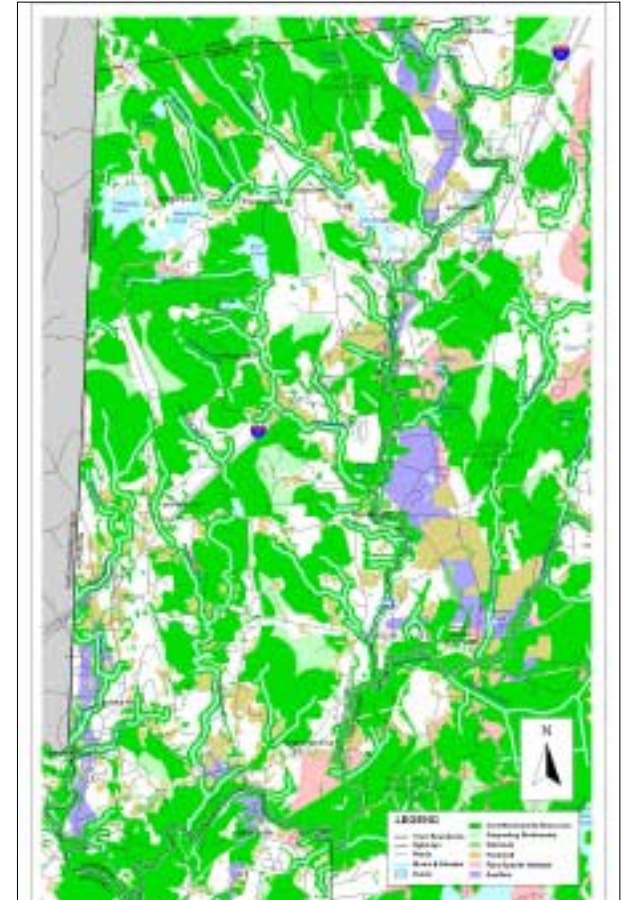
## Natural Resources

Natural resources were mapped primarily using the most current data available from the Rhode Island Geographic Information System. The most critical natural resource for South County Communities is **water supply**, which was mapped using three types of areas: aquifers,



*The natural resources inventory of Hopkinton included wetlands and waterbodies (blue), large forest blocks (green) aquifers (yellow) and natural heritage areas (red).*

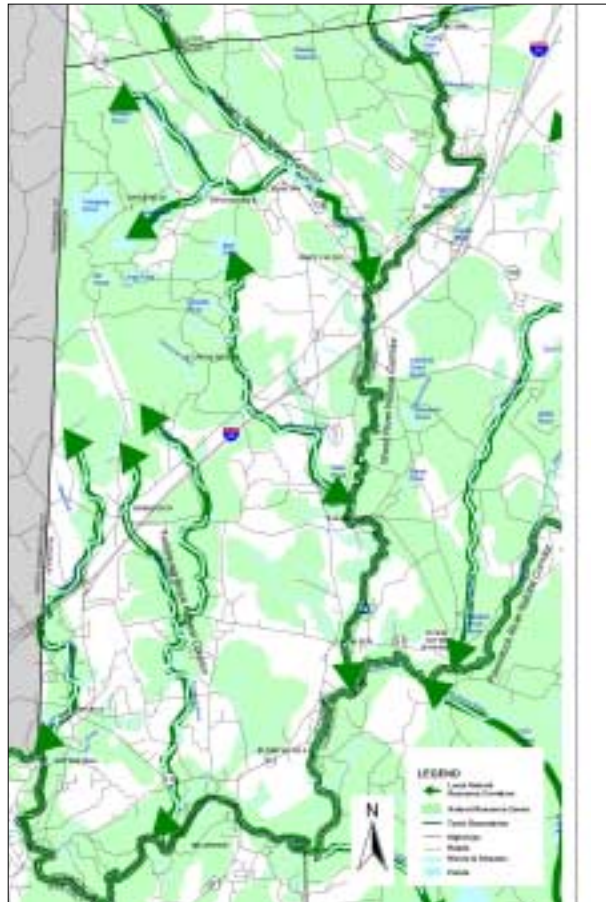
aquifer recharge areas, and wellhead protection areas. **Surface waters systems** are critical to the ecology of the county. These included rivers, streams, ponds, and wetlands. A three hundred foot buffer around these surface waters was shown to indicate the area that is most critical to protect both wildlife habitat and water quality. Overlaid with these physical resources were **rare species habitat** areas identified by



*A map of core biological resources (dark green) helps to show the areas with the highest ecological value, and the river and stream corridors that connect them.*

the Rhode Island Natural Heritage Program. These include documented occurrences of rare species as well as surrounding areas that are critical to their ongoing survival. Finally, in our discussions with scientists at the University of Rhode Island and the Nature Conservancy, it was determined that of all factors in measuring wildlife habitat, the presence of large tracts of undeveloped forest – especially when connected





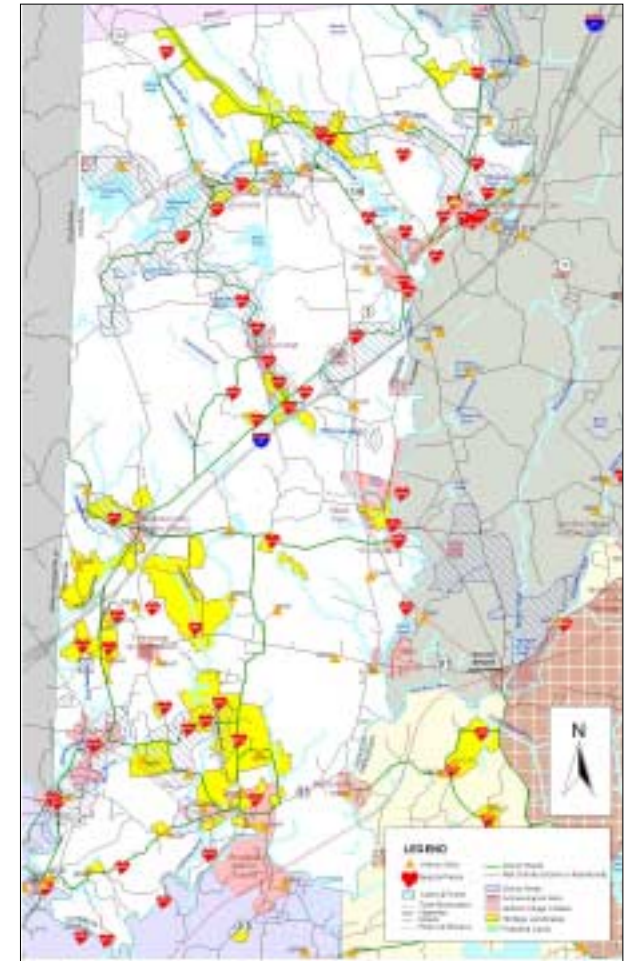
*Combining areas with the highest ecological value with other resources highly valued by the town, such as aquifers and farmland, a simplified map of Hopkinton's natural resource priorities shows the most important areas (light green) and connecting corridors (dark green).*

to river and stream corridors – provides the highest value for preservation of all species of wild plants and animals. Lacking an existing data layer for these areas, the consultant team used the 1997 aerial photographs from RIGIS to create a new digital map of **large forest blocks**.

## Cultural Resources

While natural resources evolved and continue to grow without human influence, cultural resources generally include anything that people have made, or that people care about. These include historic sites, scenic areas, working agricultural landscapes, etc. This includes both the kind of things that can be objectively described, such as an historic farmstead that Washington slept in, as well as places that are important to the history of a particular culture or the ongoing life of a town. Like natural resources, the study of cultural resources can engender a long list of potential factors; in order to fit the analysis into the time that was available we identified three key groups of cultural resources: historic resources, scenic landscapes, and special places.

The inventory of historic resources began with **historic and archaeological sites** that have been identified at a statewide level and mapped as part of RIGIS. Because this is limited to those that have been listed, or are candidates to be listed on the National Register of Historic Places, many locally important historic sites were not identified. It was determined that the best source for additional information is a series of Historic and Architectural reports prepared by Rhode Island Historical Preservation Commission. Each of these reports contains an inventory and evaluation of many local sites, which were digitized as a new geographic data set.



*Hopkinton's inventory of cultural resources includes historic sites (orange triangles), heritage landscapes (yellow), scenic areas (blue hatch), and special places.*

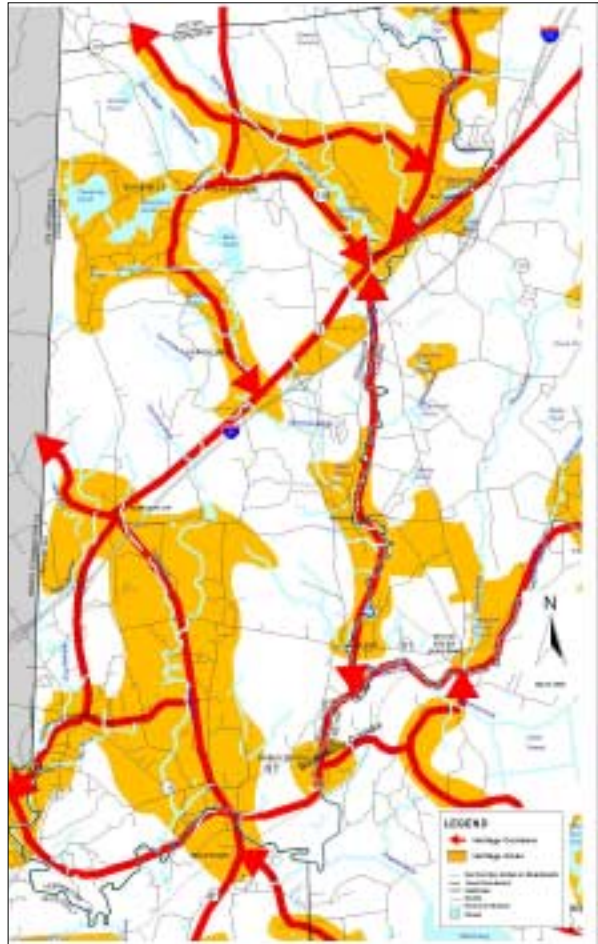
These sources, however, usually focus on a specific structure or group of buildings, without mapping the landscape context. By this we mean that area which was traditionally connected functionally to the structure or site, and which continues to be important to maintaining its visual character. Many old New England homesteads have been protected, for

example, while the fields and woodlots that surround them were developed, destroying the historic landscape resource itself, but as importantly diminishing the value of the structure at its center. For our purposes, then, the task was to identify those historic sites and surrounding landscapes that still exist, drawing a boundary on the maps to mark the minimum area that should be protected or managed to protect that cultural landscape. These areas, which include agricultural landscapes, mill sites, and historic village centers, are identified as **heritage landscapes**.

The evaluation of **scenic landscapes** likewise began using a statewide inventory known as the Rhode Island Landscape Inventory, and another statewide survey of scenic roads. Volunteers on the local committees enhanced this information using town reports and windshield surveys to identify areas with high scenic quality at the neighborhood scale, with an emphasis on those that are visible from public areas. Specific views or vista points were also identified.

The final category of cultural landscapes that were identified was “**special places**.” These include all the places in town that people care about, those “places in the heart” that may not be valuable in and of themselves, but which are nevertheless critical to local character and quality of life. They may be scenic spots or historic sites, just as often they are local hangouts, places where people go to meet each other, or just to get away from it all. In some towns these were compiled from existing

surveys or planning studies; in others volunteers posted maps in public places and asked people to mark down their special places.



*Just like the map of natural priorities, this map of cultural resource priorities is designed to show the overall pattern of historic sites and other cultural resources. The orange areas represent zones with an unusual combination of historic sites and surrounding heritage landscapes, scenic roads and vistas, as well as the special places valued by local citizens. The red arrows identify cultural corridors, such as the historic New London Turnpike and the Pawcatuck River, both of were fundamental to the creation of Hopkinton's village centers.*

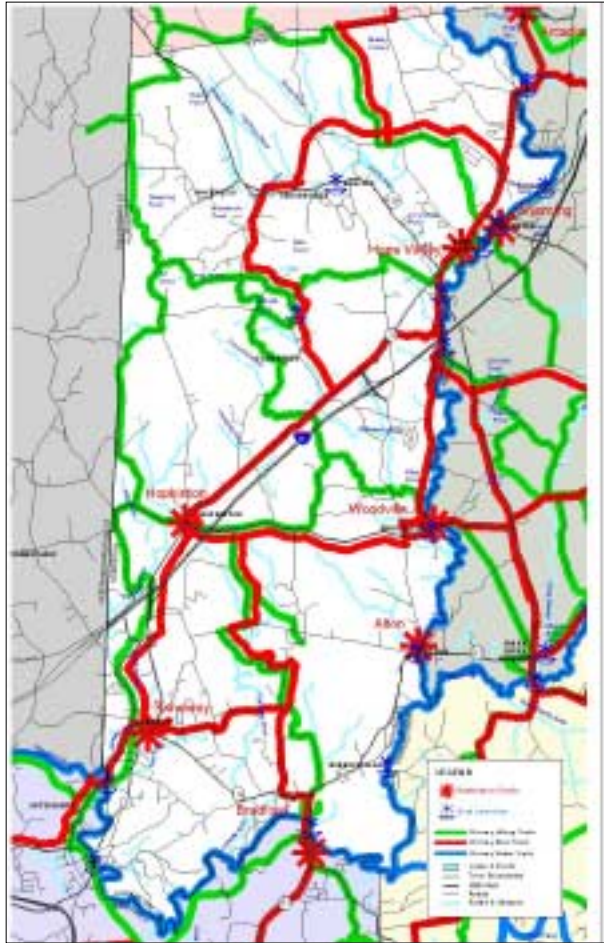
## Recreational Resources

The focus of the recreational resource analysis was opportunities for active recreation, especially trails and other recreational routes. Three types of trails were identified in the inventories, which located both existing trails and potential future trails. Existing **hiking trails** were identified by local volunteers on USGS base maps, and compiled from trail maps published in trail guides. The Nature Conservancy supplied a digitized alignment for the North South Trail, which is the only existing regional trail. Potential future trails were identified based on aerial photographs and USGS maps, with a combination of local knowledge of informal trails and expert opinion about what might be possible using a combination of public roads, utility corridors, overgrown woods roads, etc.

Likewise, **bike trails** and routes were identified with the help of local volunteers, who extended the limited system of rail trails and marked routes with their knowledge of the best bike routes on existing roads. Of all the possible routes, the emphasis was placed on those which offered a combination of natural and cultural landscape experience, scenic value, and logical destination points.

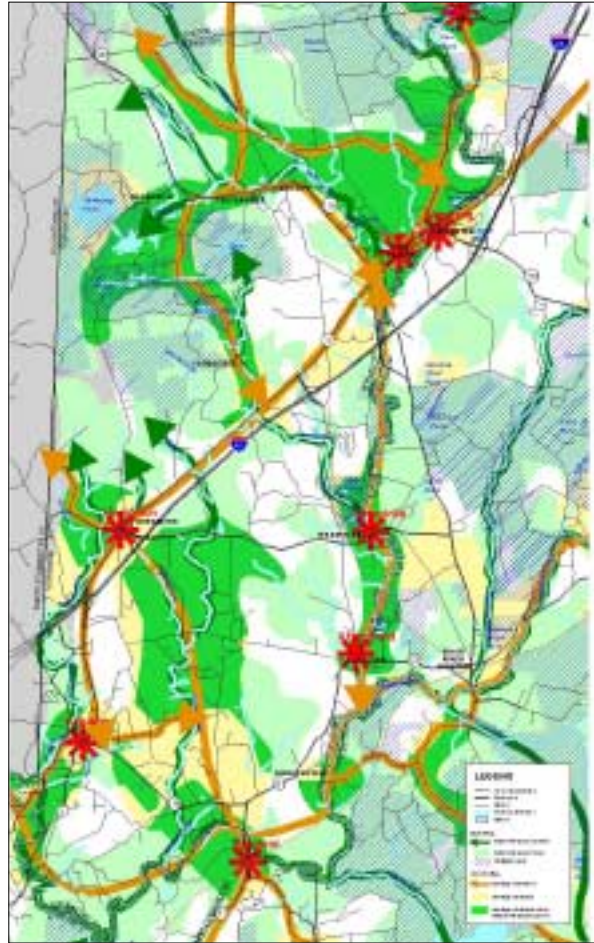
The final kinds of trail identified in the study were **water trails**. Like bike routes, these exist, in theory, wherever there is navigable water. As a practical matter, turning these into useable trails that connect places people want to go requires a large amount of planning and field





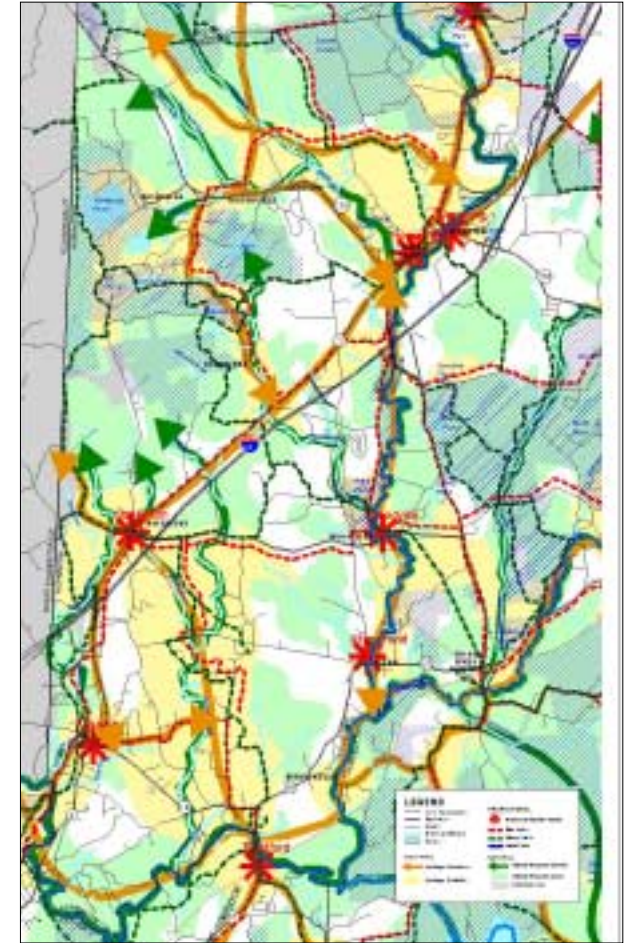
*The recreational resource priorities establishes goals for a future network of trails for hiking (green), biking (red) and boating (blue). Key destination points link the system together into a cohesive system.*

work. This was ably supplied by the Wood-Pawcatuck Watershed Association, which prepared a detailed inventory of existing and potential access points for the majority of the Pawcatuck Watershed. Other access points were identified from RIGIS coverages of boat launches and marinas, and volunteers in each



*The final step in the Greenspace planning process is to overlay the separate resource maps to identify areas rich in both natural and cultural resources (dark green). These are often the most important to protecting the unique character of the community.*

community helped in planning potential boating routes along the coast, through the salt ponds, and in some of the shorter river systems. Lastly, **destination points** were identified, both to locate fixed recreation sites like parks, playgrounds and schools, and to evaluate the potential of the various trail systems in



*By adding recreational priorities and land that is already protected (cross hatching), planners can identify opportunities to preserve multiple resources while providing sites for public recreational access, historic interpretation, nature trails, and so on.*

developing a network connecting important points around the county. These points were divided into primary destinations, such as village and town centers, regional transit hubs, and the University of Rhode Island, and secondary destinations, such as parks, playgrounds, conservation areas, and schools.

### III. Regional Mapping and Recommendations

The process of inventory and analysis for the nine individual towns produced a set of maps for each community, as described in the previous section. These were compiled into a set of county-wide maps, organized along the same lines into the three resource themes. With review by participants in the regional workshops, regional priority maps were prepared to show the key resource areas and corridors for each of the resource types. Finally, a regional composite map was prepared, to identify those areas with a unique combination of resources.

#### Protection Targets

The diverse collection of groups and agencies involved in open space conservation in South County will, of necessity, continue to pursue their individual goals and objectives. It is hoped, however, that by focusing on the shared goals that have been identified by this project, these groups can work together to shape a permanent open space network for South County. The following **protection targets** have been identified over the course of the project as the most important to realizing this overall goal. They represent a compilation of what the team heard from town committees at the local workshops, recommendations that came out of the regional conferences, and interviews with key stakeholders.

With the broad spectrum of groups involved, it is impossible to claim that one target is the most important, so they are divided into separate targets and strategies for natural, cultural,

and recreational resources. These are listed following the inventory and priorities maps for each of the resource types. Additional maps are included to clarify the location of resources such as farmland, forests and water supplies, that are not often seen from a regional perspective.

The following regional maps are described in this section:

1. Inventory of Natural Resources
2. Biodiversity Priorities
3. Borderland Forest, Queen River Watershed and Coastal Pond Initiatives
4. Farmland
5. Aquifers, Recharge Areas, and Wellhead Protection Areas
6. Status of Water Supply Protection
7. Natural Resource Priority Areas and Corridors
8. Natural Resource Priorities With Protected Lands
9. Inventory of Cultural Resources
10. Cultural Resource Priorities
11. Inventory of Recreational Resources
12. Recreational Resource Priorities
13. Recreation Resource Targets
14. Composite Resource Priorities
15. Composite Priorities With Protected Land
16. Landscape Preservation Focus Areas

#### Landscape Preservation Focus Areas

The separate actions of the various conservation groups, towns, and government agencies in protecting and managing open space resources have been and will continue to be the foundation of open space conservation in South County. However, the study showed that in each town there are areas that are significant, not because of any one resource, but as a result of a unique combination of natural beauty, historic and cultural value, and recreational opportunity. These areas, unfortunately, are sometimes overlooked by conservation groups because they lack resources that “score highly” in any single category. Yet these are often the very landscapes that produce the special visual character and quality of life that draw people to South County.

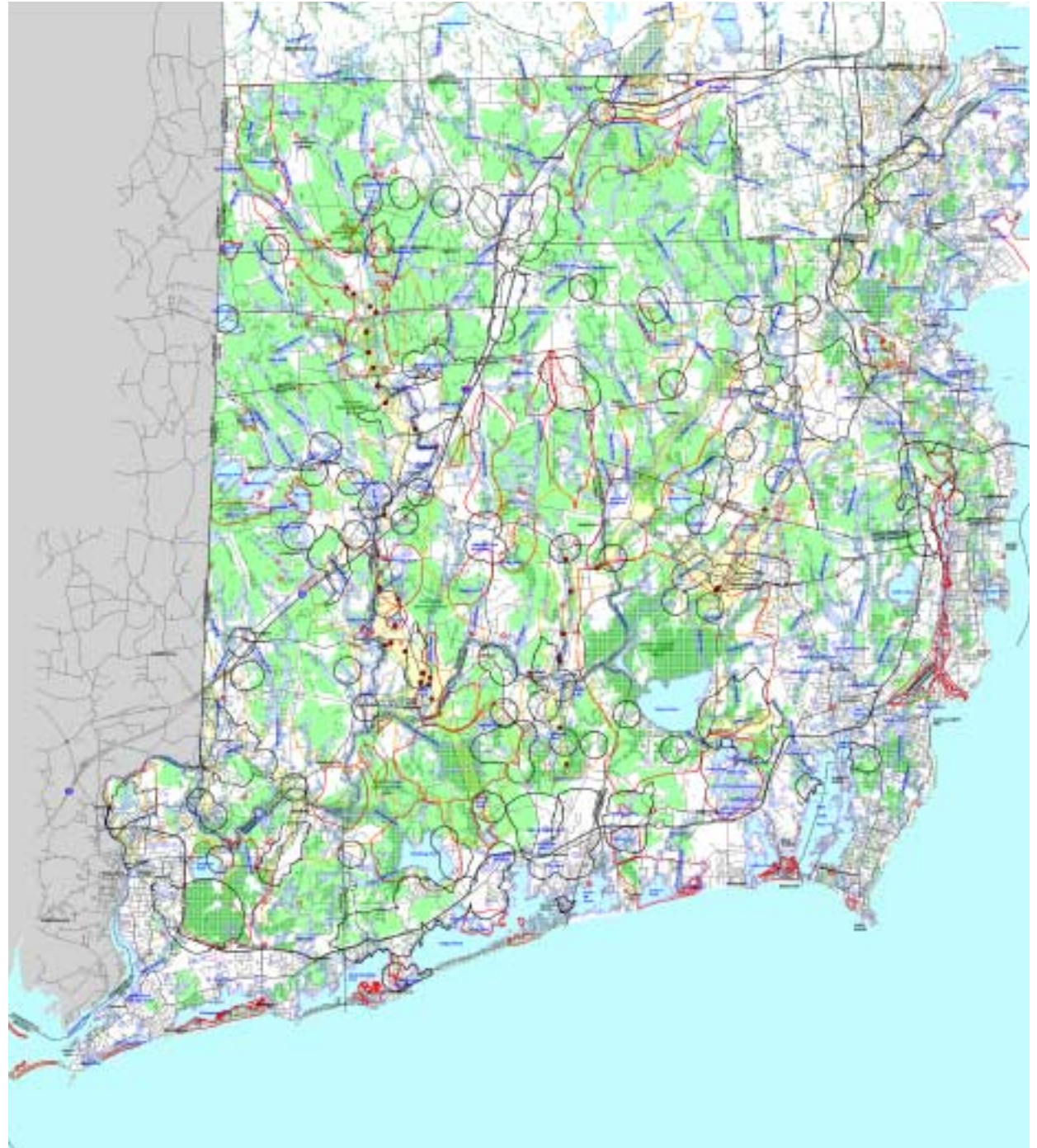
As described below, these important South County landscapes were identified by overlaying the three resource priority maps to create a single composite map of natural, cultural and recreational priorities. Using this map, eleven key areas of the county were identified for further study.



## Inventory of Natural Resources

Natural resources of the greatest interest and potential value to local residents were identified through the work of the local committees in each community, working primarily with data available on RIGIS. Several themes emerged as having critical value: biodiversity, farmland and water supply. In consultation with local ecologists, The Nature Conservancy, and state biologists, it was determined that critical biodiversity resources could be identified by mapping riparian corridors, large forest blocks, wetlands, and documented rare species habitats. A 300 foot buffer of waterbodies (violet) shows the riparian corridors; large forest blocks (green) were digitized from the RIGIS 1:5000 orthophoto set; wetlands (green dot screen) and habitats (red dot screen) are as mapped by RIGIS. Water supply was identified by showing the aquifers (yellow) and aquifer recharge areas (orange boundary line) from RIGIS. Wellhead protection areas (black) were also from RIGIS.

The complexity of the resulting map demonstrates the way South County is shot through with natural diversity -- in fact it might be easier to find places that are not important for natural resources than the opposite. The maps on the following pages break down these natural resources into separate categories of biodiversity, farmland, and water supply. A final composite shows how they may be grouped into a single map of priority natural resource areas and corridors.

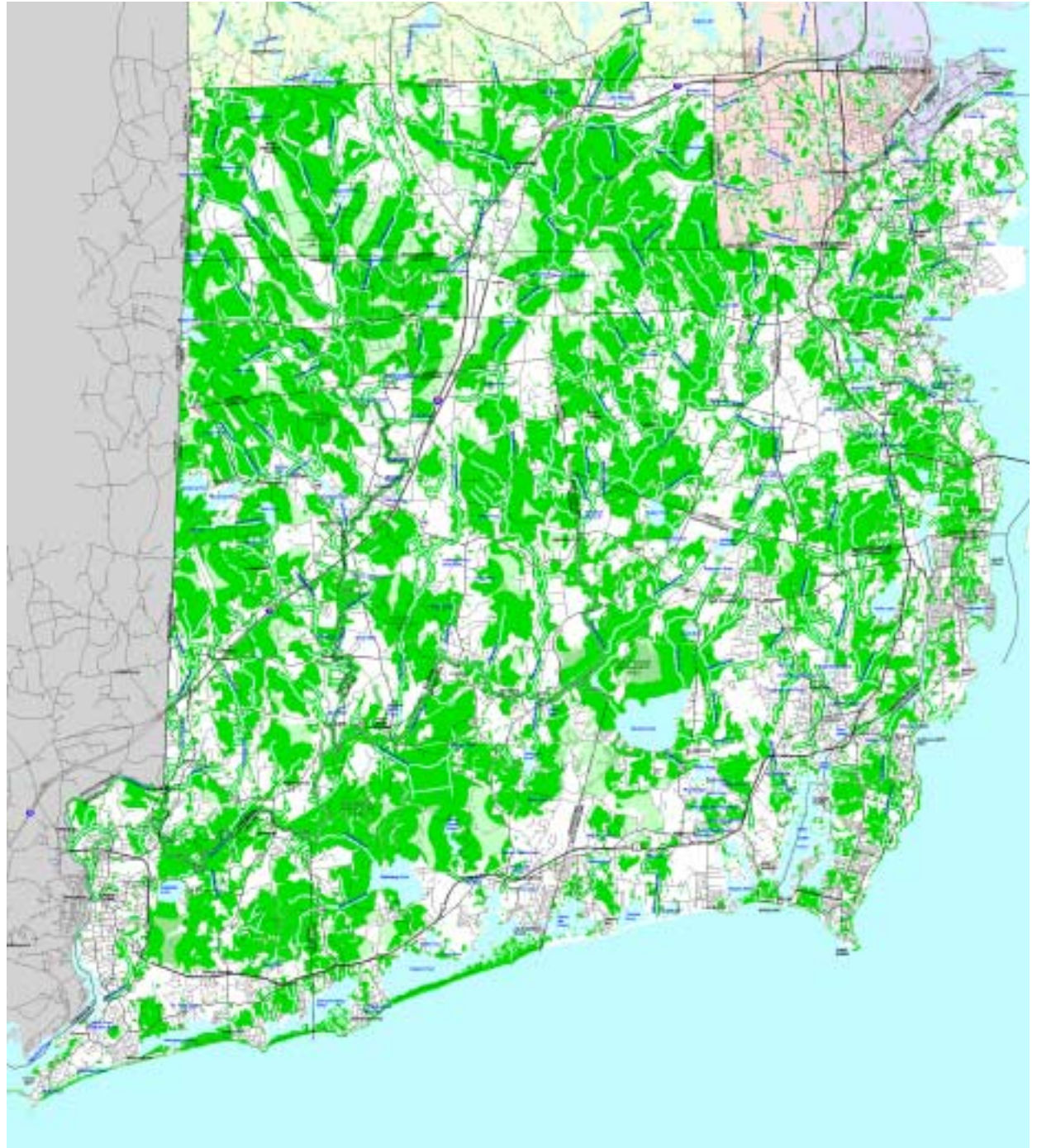




## Biodiversity Priorities

Biodiversity refers to naturally-occurring, interdependent communities of plants and animals and the landscape that supports them. In mapping biodiversity, each town sought to identify both the areas containing important species and the network of forest, wetlands, waterbodies and streams that provides them food and shelter -- in short, the ecosystems which must be preserved if these natural communities are to survive. These areas were divided into “core” and “supporting” biodiversity resources.

Core Biodiversity Resources (dark green) include the 300’ riparian corridors, and areas of forest, wetland, or habitat that lie within 2000’ of these corridors. Supporting biodiversity resources (light greens) include the remaining areas of large forest blocks, wetlands, and rare species habitat that are not near waterbodies. These setbacks are, of course, somewhat arbitrary, but help to show the larger pattern of biodiversity values across the county, which by every account is closely tied to water bodies and riparian corridors.



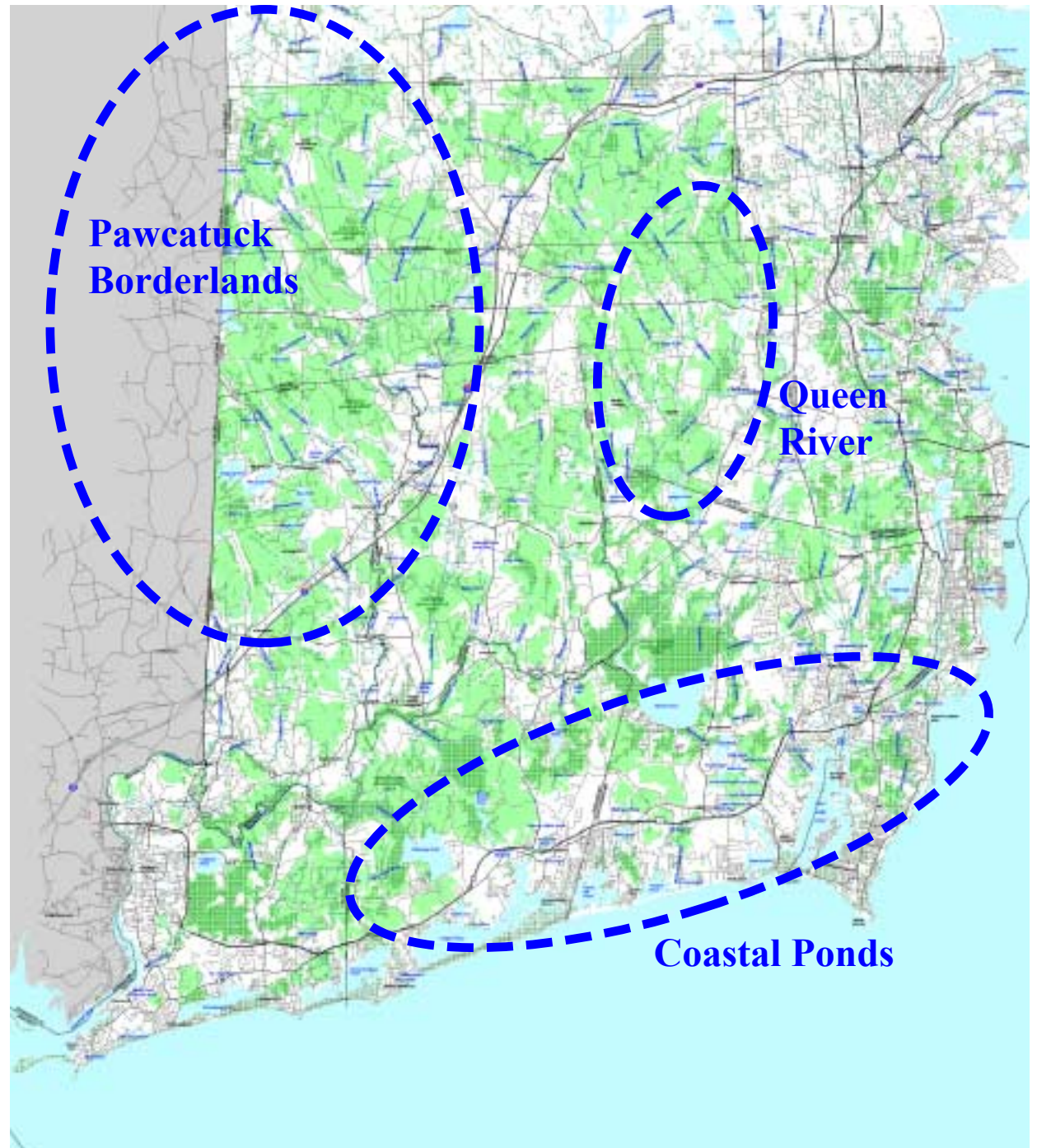


## **The Borderland Forest, Queen River Watershed, and Coastal Ponds Initiatives**

As shown on the previous map, South County is rich in biodiversity. What is less obvious is how unusual this richness is within the larger context of the Northeastern United States. As shown on this map of forests (green) and wetlands (dark green hatching), several state and national conservation groups are pursuing conservation initiatives to protect these regional resources. The Nature Conservancy, for example, has identified the 200-square-mile forested area straddling the Rhode Island/Connecticut border as one of the largest blocks of woodland remaining on the Northeastern Seaboard. Their “Pawcatuck Borderlands Project” seeks to encourage public and private conservation efforts throughout this area.

The Rhode Island Audubon Society, meanwhile, is focussing its efforts in South County on another special area, the Queen River. Having protected much of the river’s main stem in Exeter, they are gradually expanding the area of conservation land along its tributaries.

Along the coast, the U.S. Fish and Wildlife Service is working to expand a network of five refuges that protect the watersheds of the fresh and saltwater ponds from Burlingame to the Narrow River.

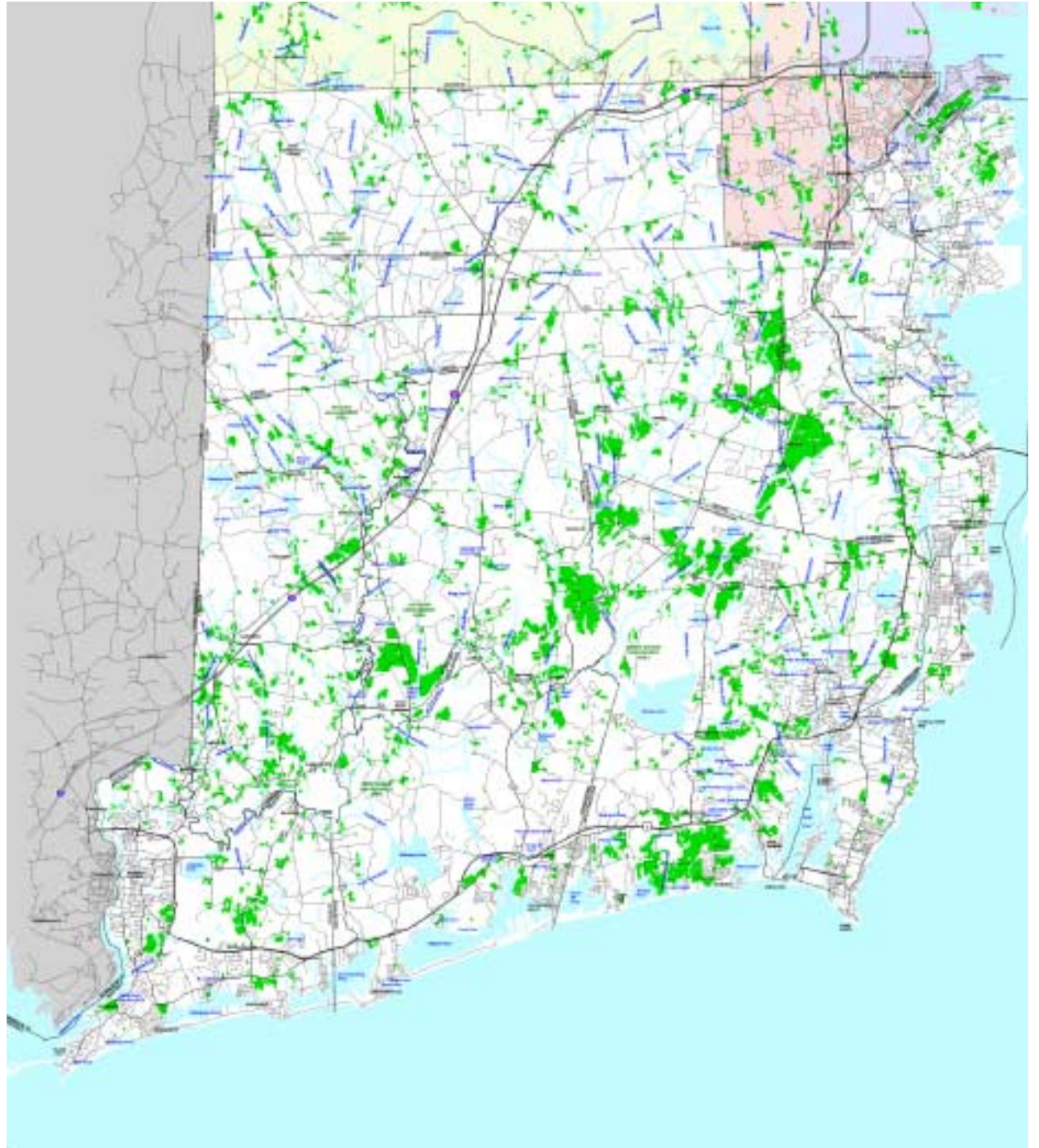




## Farmland

South County contains the largest contiguous areas of farmland in Rhode Island. As shown on the map at right, the most extensive of these are found in a belt running diagonally across the center of the county north of the Pawcatuck river, from Hopkinton to North Kingstown. Another large agricultural area may be found in Perryville and Matunuck, in South Kingstown. This pattern is a direct result of the geological history of the region. The best soils were deposited where the streams that drain the hilly Northwestern corner of the county meet the lowlands of the Pawcatuck River.

These areas were important to the early history of the area, which was dominated by large plantations unique in New England. Later, they supported potato farms, and more recently, sod farming and nursery crops. Throughout the rest of South County, farmland is scattered among hundreds of smaller areas, mostly along narrow stream valleys. These once supported a local dairy industry, which as given way to a mixture of hay, fruit crops, and vegetables.

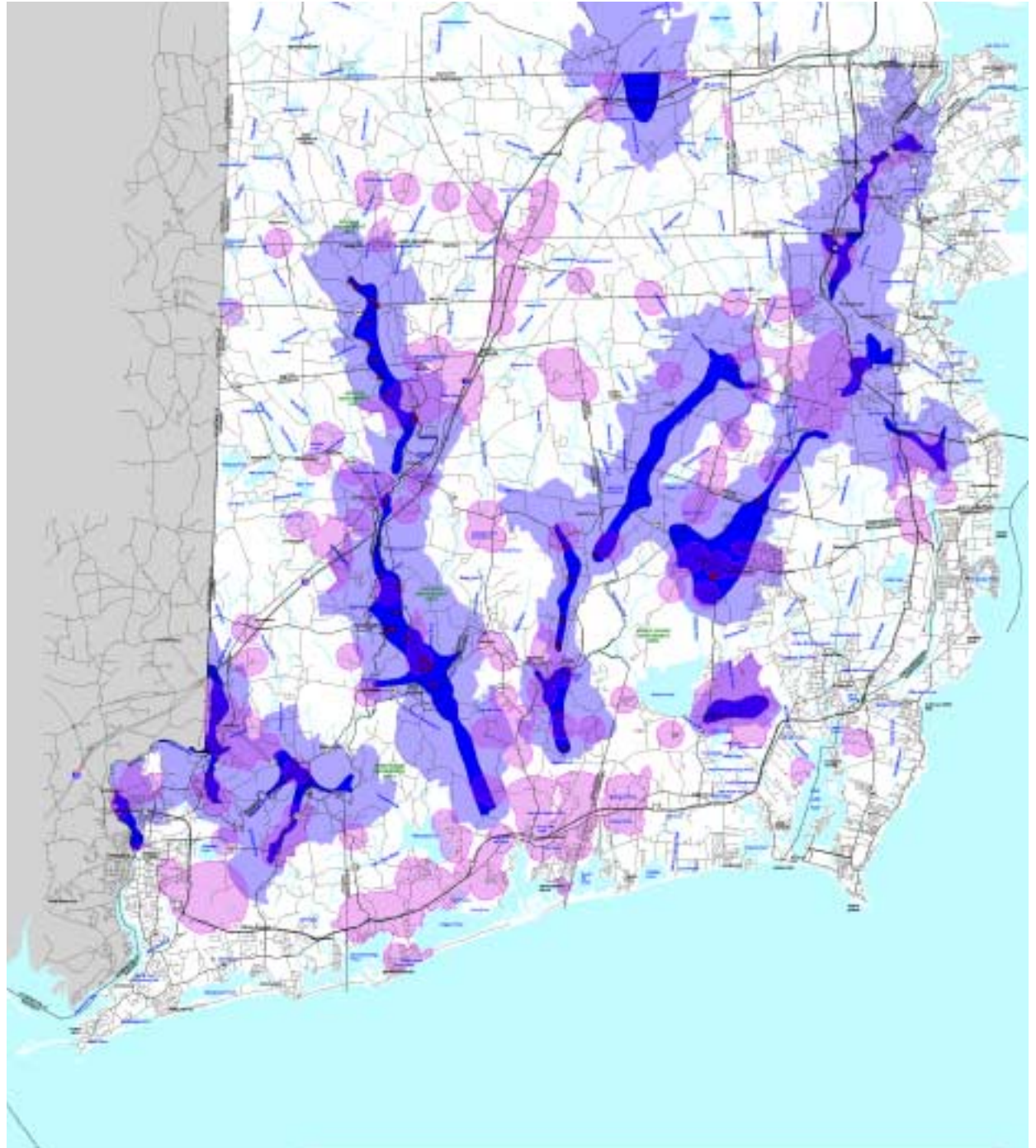




## Groundwater Reservoirs, Recharge Areas and Wellhead Protection Areas

With the exception of the coastal plain south and east of Route 1, virtually all of South County has been designated a sole-source aquifer by the U.S. Environmental Protection Agency. Within this area there are groundwater resources of critical importance to each community. Shown in dark blue on this map, groundwater reservoirs contain the highest potential yield of drinking water. Surrounding these are the groundwater recharge areas (light blue), which include the surface lands that drain into the groundwater reservoirs.

There are thousands of individual household wells scattered throughout the county. The state places particular importance on wells that serve businesses or multiple connections. “Community wells” include those that serve 25 people or 15 connections year-round; “non-community wells” serve 25 people at least 60 days out of the year. In both cases, the state has designated an area around each of these shared wells as a wellhead protection area (purple cross-hatching). These wellhead protection areas are considered critical for the protection of each well’s source water supply.

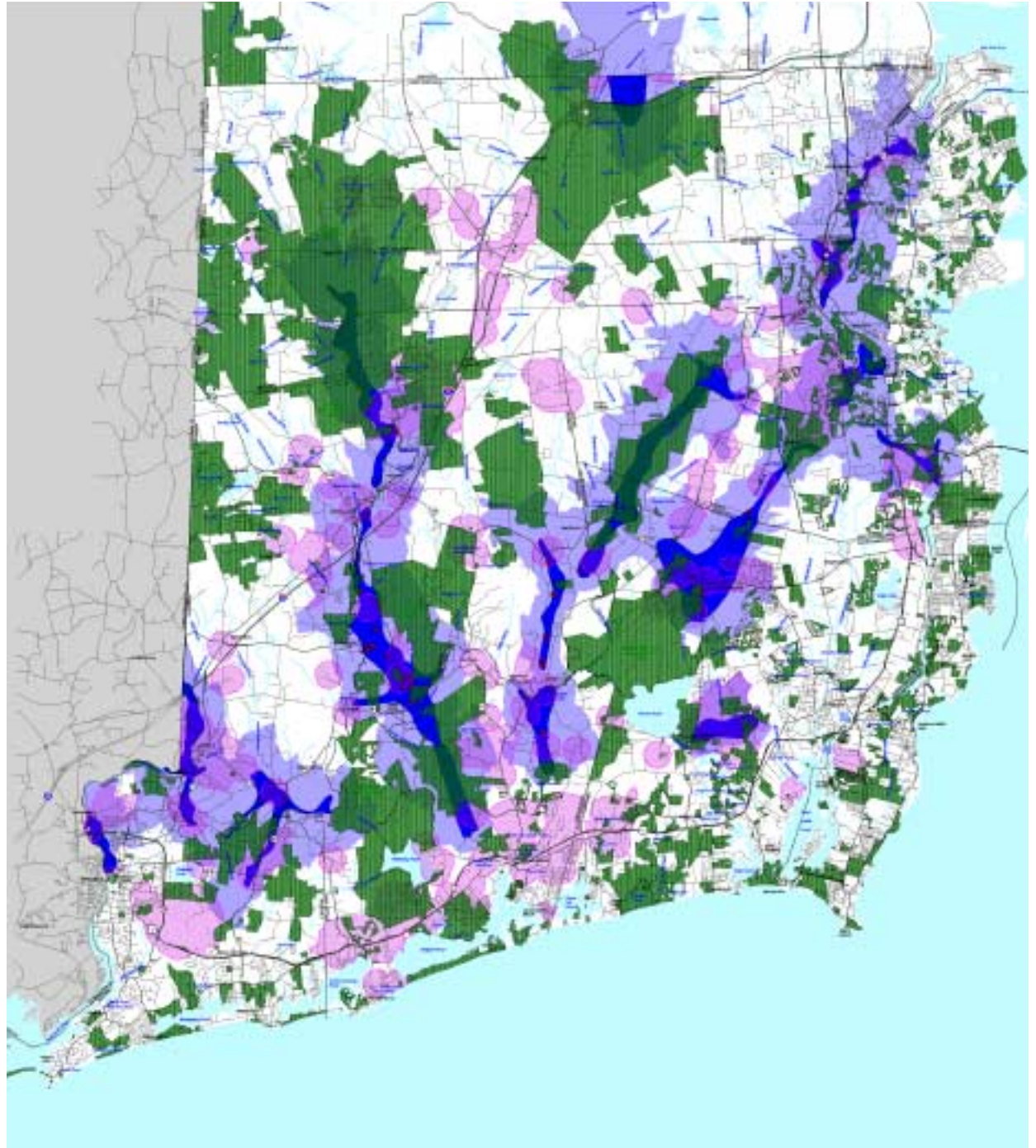




## The Status of Water Supply Protection in South County

The protection of drinking water is the most important natural resource protection target for the South County communities. The U.S. Environmental Protection Agency has designated two aquifers, the Pawcatuck and the Hunt-Annaquatucket-Pettaquamscutt (HAP), as sole source aquifers because they are the only sources of drinking water for an area that encompasses virtually the entire South County Region. At the local level, the greenspace workgroups quickly reached consensus that it is a priority to protect the region's water supplies. The most critical portions of the aquifers to protect are the ground water reservoirs (dark blue). These areas contain the highest yield of drinking water and are hydrologically linked to surface waters. Protection of ground water reservoirs also helps to protect surface waters, riparian habitat and to form continuous links of protected areas through communities and the region. As can be seen on this map overlaying protected land (green), however, many of the ground water reservoirs are not yet protected.

All of the communities in the project area have adopted some form of *groundwater protection overlay district* in the local zoning regulations. On the state level, the Rhode Island Department of Health – Source Water Assessment Program evaluates land use and potential drinking water quality threats around public drinking water supplies. Meanwhile, the Rhode Island Water Resources Board works with major water suppliers to protect drinking water supplies under the State's Watershed Protection Program.



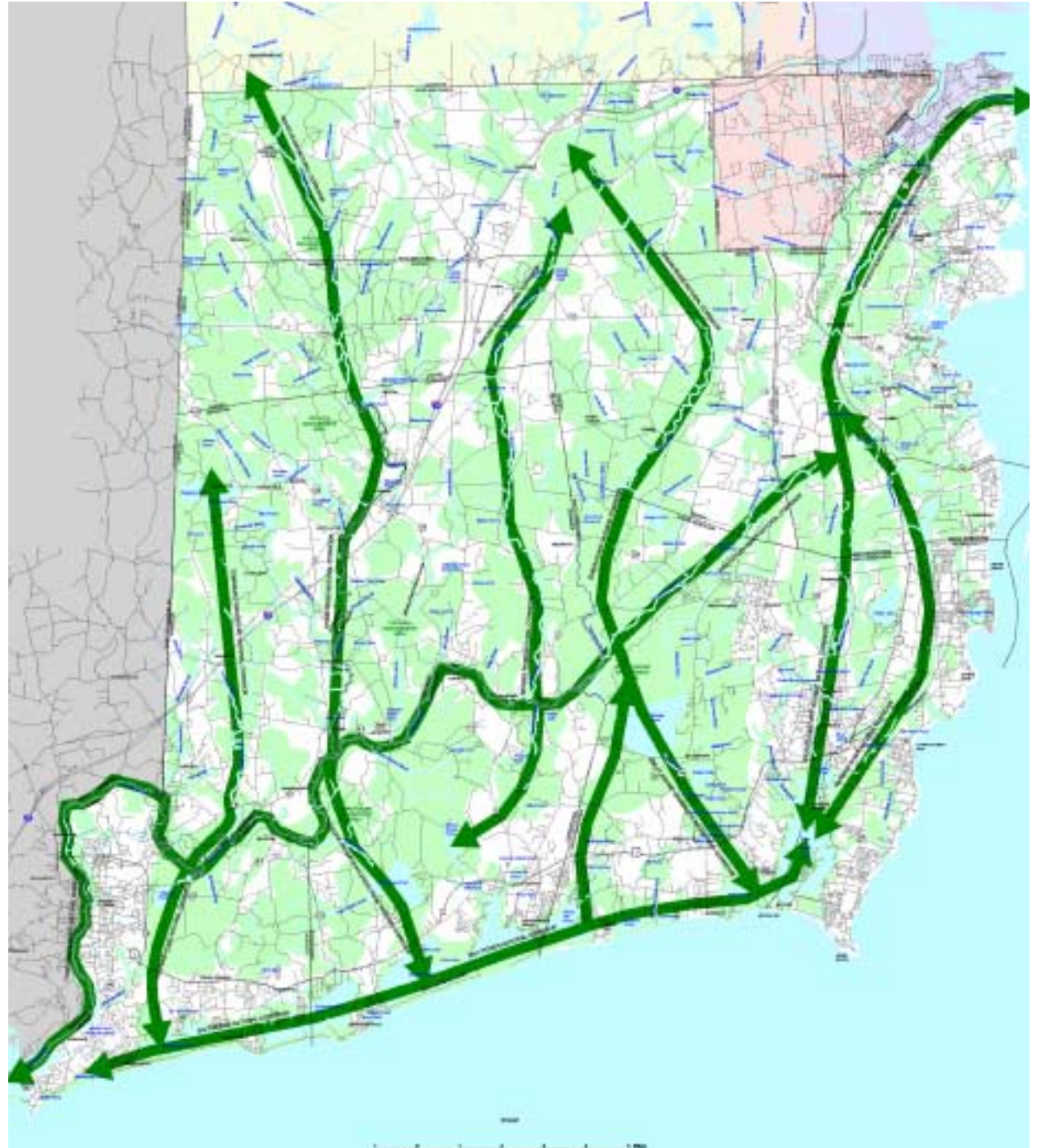
South County Greenspace Protection Strategy



## Natural Resource Priority Areas and Corridors

While virtually all of the county is, to some extent, important for either biodiversity or water supply, in order to make decisions for conservation and management it is necessary to group resources according to their relative value. While each town, state agency, and private conservation group has its own standards for setting priorities, this map shows one approach to defining relative values based on features shown on the previous maps.

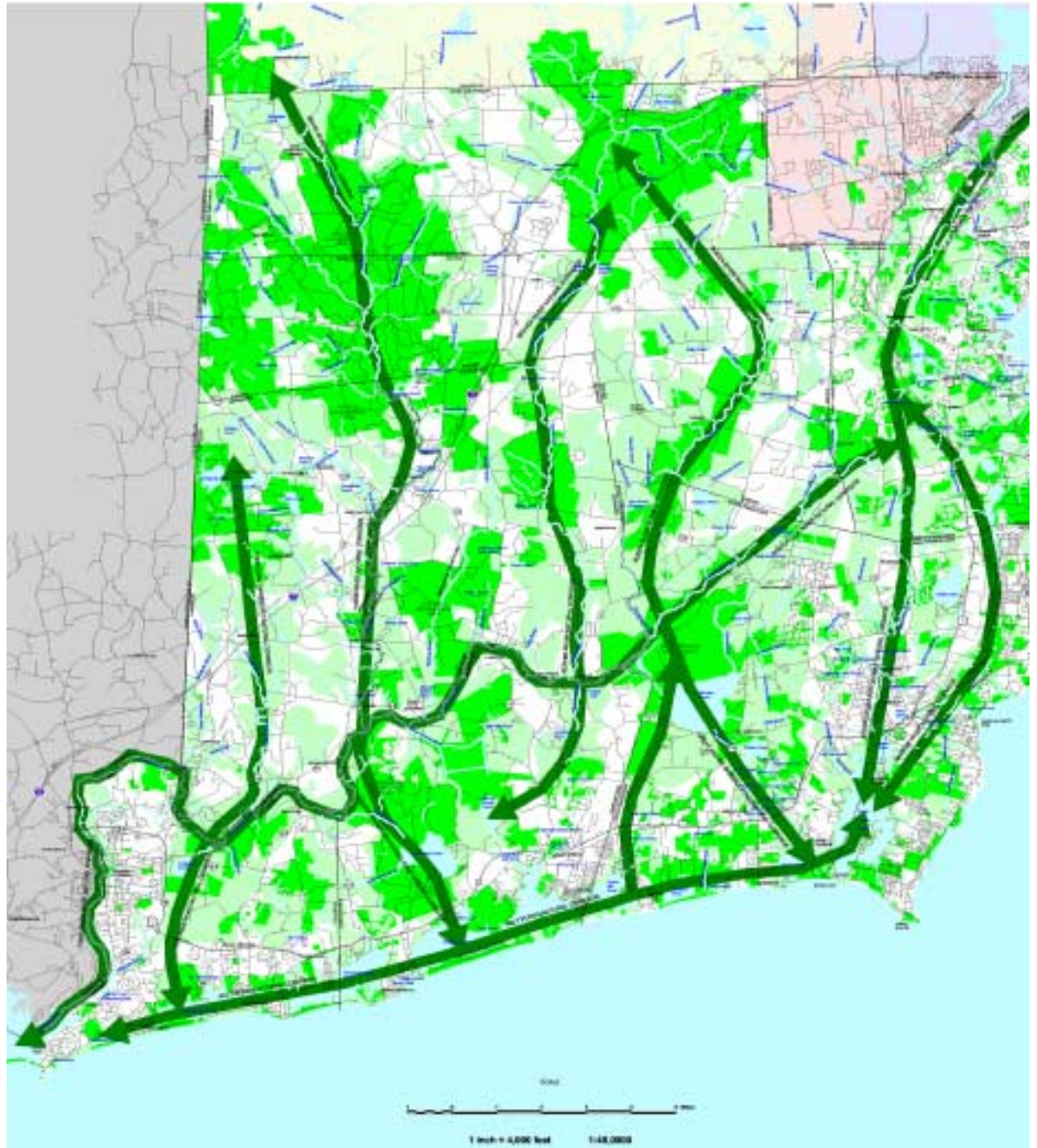
The light green areas represent the core biodiversity zones, combined with areas most important for water supply and farmland. The dark green arrows show the corridors that tie the system together into a functioning whole. These corridors, for the most part, follow the river and wetland systems. These forested riparian corridors are critical, not only as habitat for many species of animals, but for protection of water supply. The most important of these are the Pawcatuck and its tributaries, particularly the Tomoquag, Wood, Beaver and Queen Rivers; as well as the Saugatucket, Narrow and Potowomut Rivers. Another important corridor connects the salt ponds along the coast.





## Natural Resource Priorities with Protected Lands

Overlaying the natural resource priorities (light green) with areas that have already been preserved (dark green) reveals gaps in the “connective tissue” of a potential future network of natural resource protection. This demonstrates the pattern of previous conservation efforts, which have been effective in consolidating large blocks of forest in the Western part of the county, with many smaller preserved parcels in the Eastern towns. While the core of many of the largest riparian forest areas have been preserved, most are surrounded by thousands of acres of similarly valuable, but unprotected, land which drains directly into them. Areas of greatest concern based on this analysis include the Tomoquag Valley in Hopkinton, the lower reaches of the Wood River, the Beaver River in Richmond, and the headwaters of the Saugatucket, Narrow, and Poto-womut Rivers in North Kingstown. Another good example is the Queen River basin, (inset), where the main stem has been protected but most of the river’s tributaries are not.

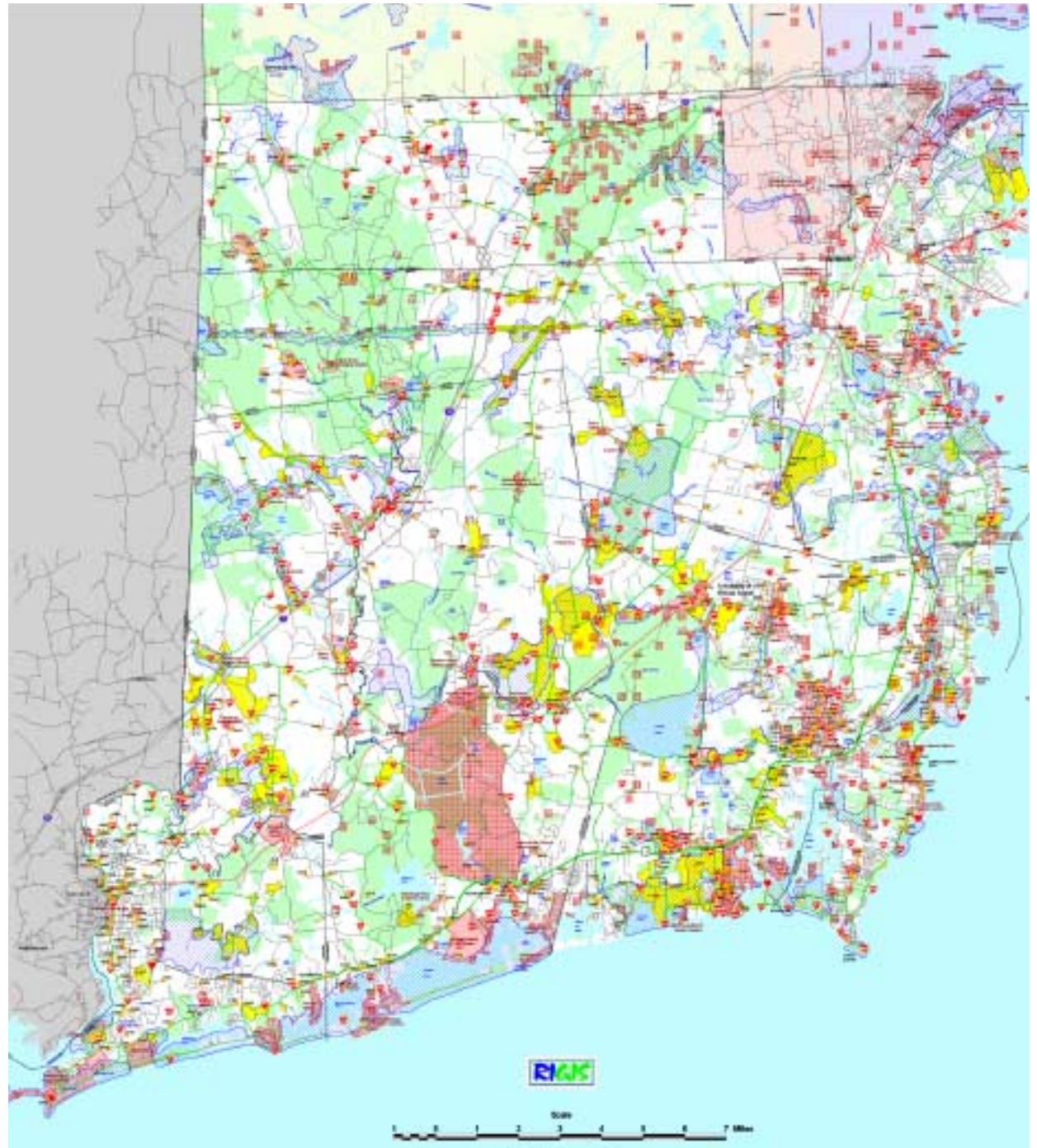


South County Greenspace Protection Strategy



## Inventory of Cultural Resources

Three types of cultural resources were inventoried and assessed. Each of these shares the common element of being important to the history, present lifestyle, or future livability of South County. The first category includes historic sites, which were digitized from local inventories of historic and architectural resources prepared by the Rhode Island Historic Preservation Commission; archaeological sites mapped by RIGIS; and additional historic data mapped by volunteers in each community. Another type of historic element are heritage landscapes, which represent traditional agricultural or mill landscapes that have the potential to serve as “living museums” of South County’s working landscapes. The second group includes scenic resources, which were compiled from the Rhode Island Landscape Inventory (RIDEM, 1990); from the state Inventory of Scenic Roadways (Rhode Island Scenic Roadways Board, 1996); and locally identified scenic roads and scenic areas. The third type of cultural resources were “special places,” which are meant to include locations in each town that are important to the daily life or character of the community. These were identified by the local volunteer committees, and represented by the red hearts on the maps, since they are “places in the heart.” Each of these cultural resources were placed on the map shown here, and overlaid with lands that have already been protected. The result illustrates how few of these important cultural resource areas have been preserved.

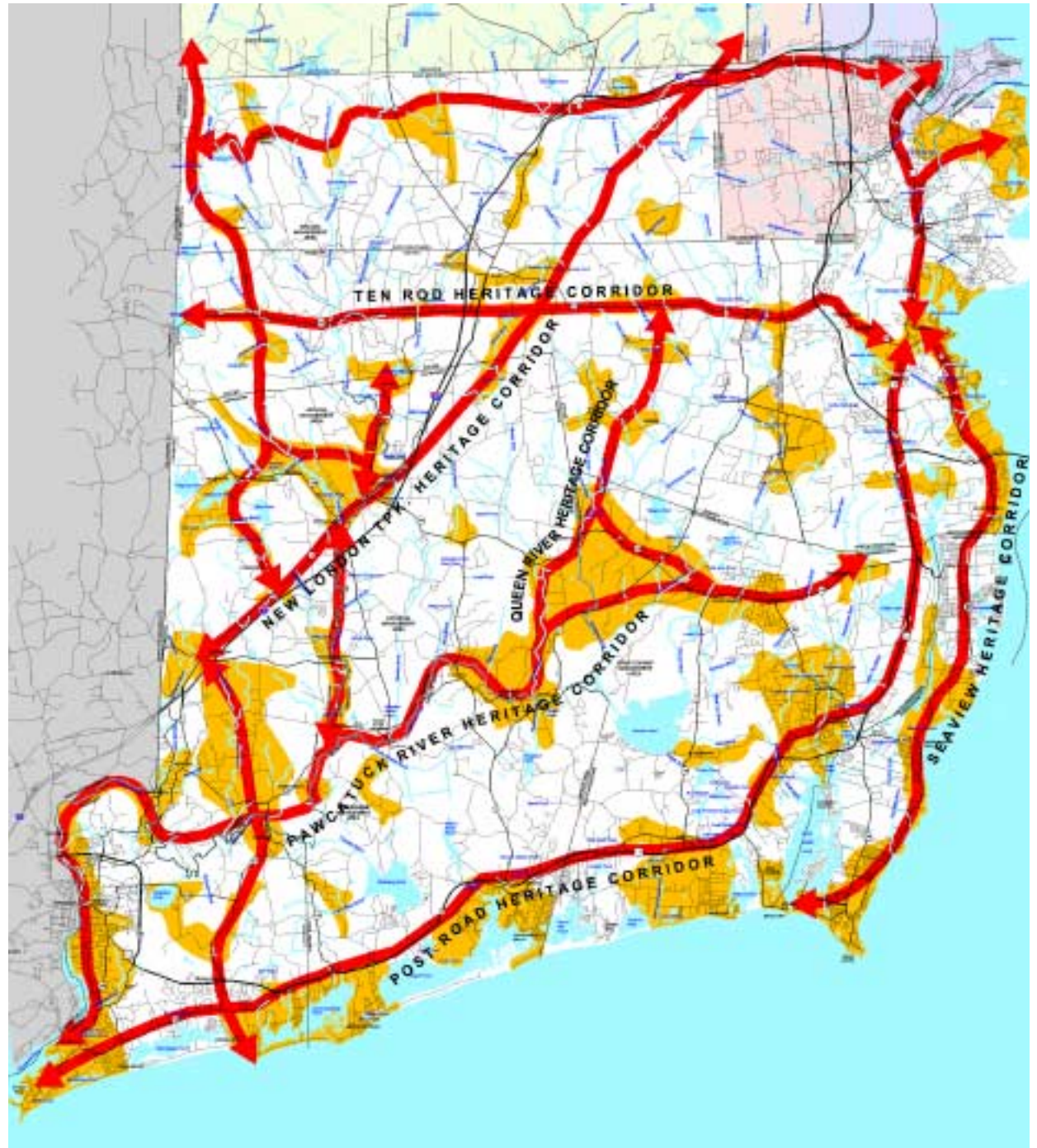




## Cultural Resource Priorities

Based on the initial inventory of cultural resources, areas with a high concentration of valuable elements were grouped into “heritage areas.” Each of these areas represents a special combination of cultural resources: traditional agricultural landscapes; historic villages, farmsteads and mill sites; scenic corridors; and special places that are important to local residents. As shown on this map of Cultural Resource Priorities, these resources tend to follow other landscape elements, which might be natural features such as the Pawcatuck River or salt ponds, or cultural features like historic highway or rail corridors. What this map suggests is that by protecting a relatively limited number of key corridors, we can preserve the cultural landscapes that give South County its unique visual character and quality of life.

Specific targets include **Preserving and Enhancing the Village Centers of Kenyon, Shannock, Carolina, etc.** The historic village centers of the region are showpieces in what some may call the, ‘Living Museum of South County’ and represent existing and future growth centers for population and commerce. As communities strive to revitalize village centers and new development threatens their historical integrity, these historical and cultural centers require special attention in the form of thoughtful land use regulation and preservation efforts.

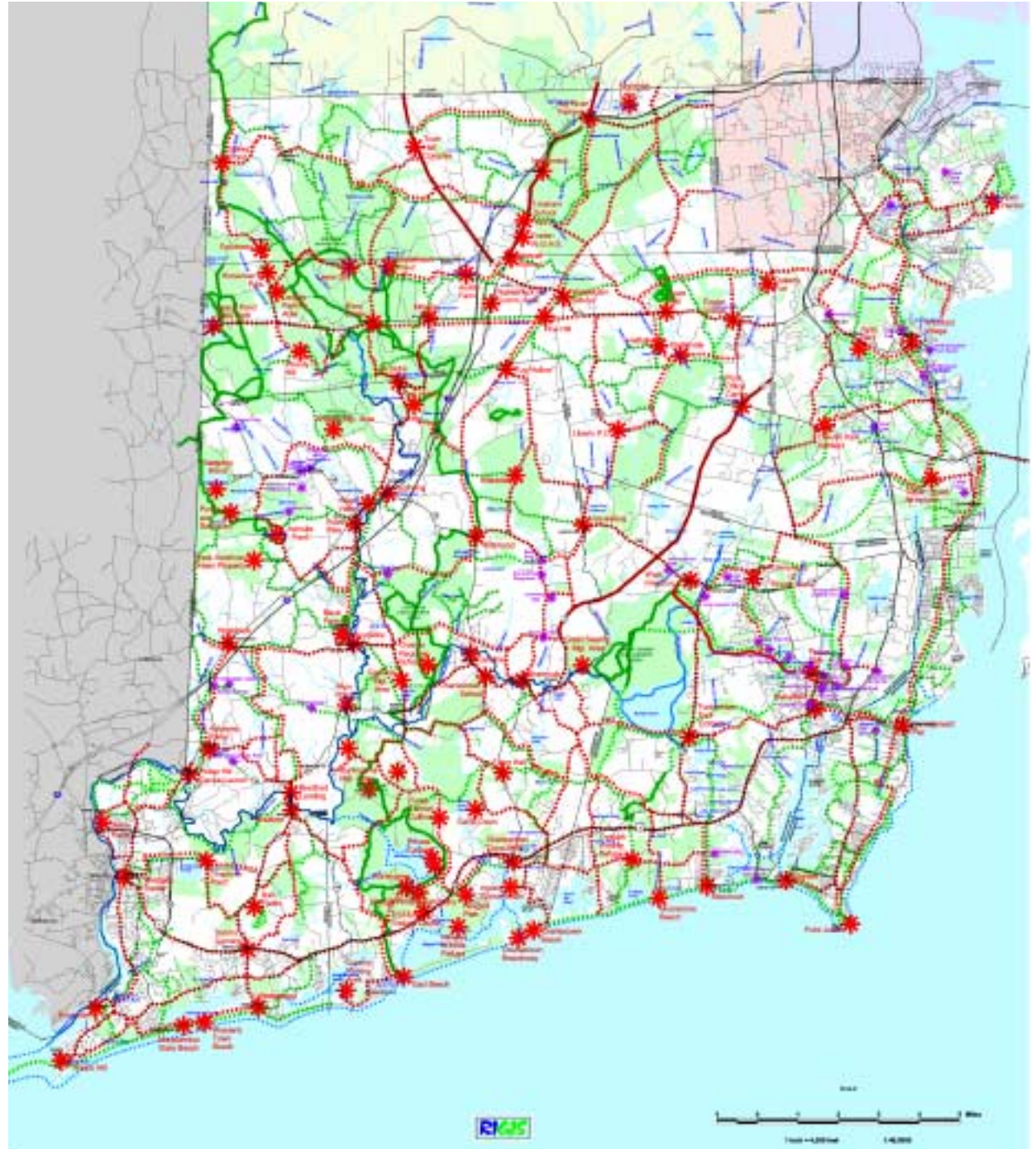




## Inventory of Recreational Resources

The recreational resources map was compiled by volunteers from each town, along with data from RIGIS for boat launches and other activity areas. The North-South trail alignment was provided by The Nature Conservancy. Access points for the Wood-Pawcatuck system were provided by the Wood-Pawcatuck Watershed Association. What is shown here is a simple composite of all the local maps

For the purpose of this study, the inventory focussed on trail corridors, and grouped these linear connections into three groups: hiking trails (green), bike routes (red), and water trails (blue). Existing trails or marked routes are shown with a solid line, while proposed connections are dashed. Major and minor destination points were also identified within this system, to illustrate the possibility of trails that link important sites of natural or cultural interest, rest and refreshment, transit or parking centers, etc.

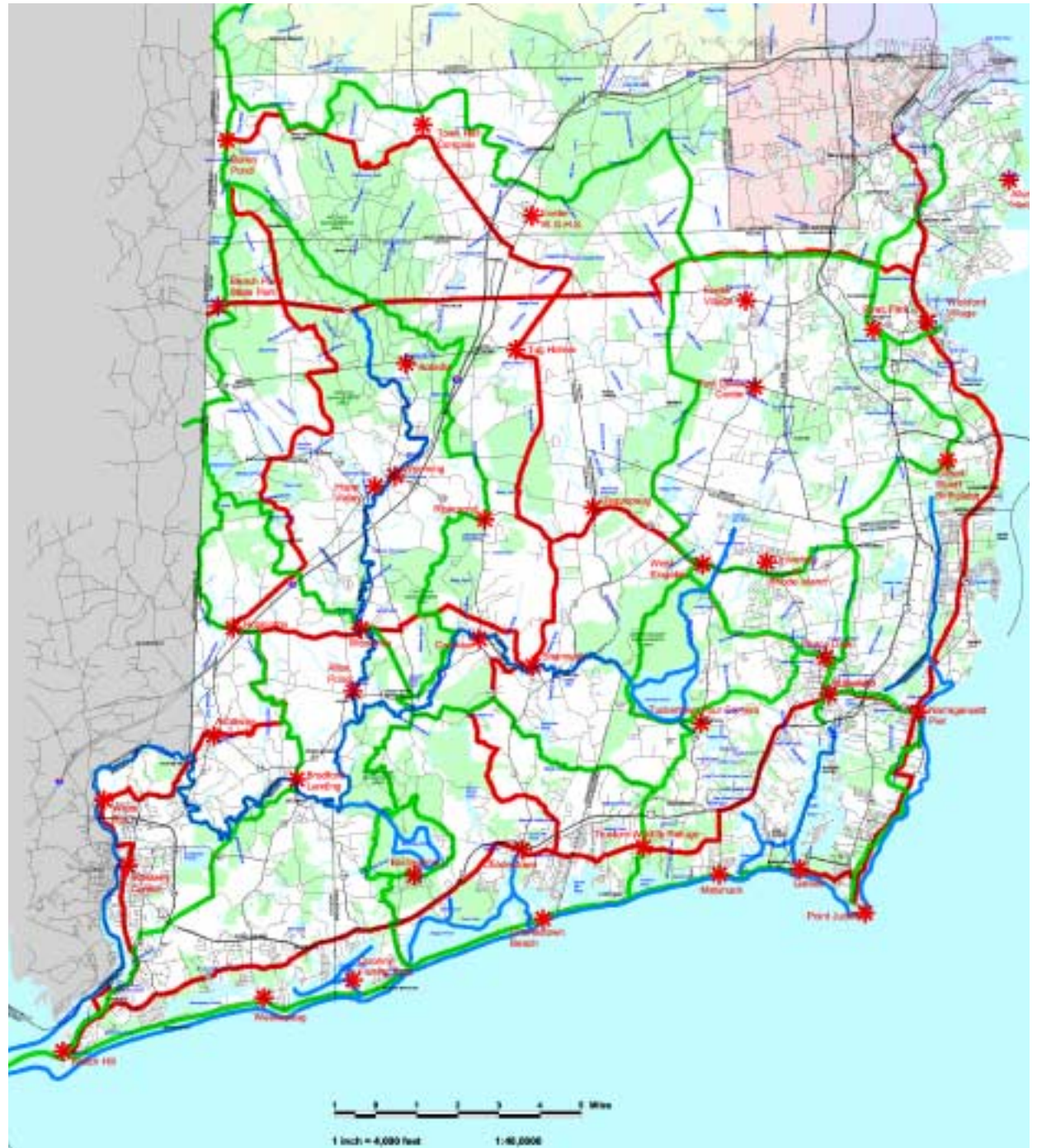




## Recreational Resource Priorities

Regional trail priorities were selected in consultation with attendees at the first regional workshop. From the compilation of all possibilities shown on the previous page, regional routes were selected that connect and extend existing trails systems, and provide the best access to natural and cultural resource areas and key destination points. **Hiking trails**, shown in solid green for existing or dashed for proposed, build on the idea of the North-South Trail to connect the four corners of the county. **Bike routes**, shown in red, connect historic village centers with a network of scenic roads and recreational routes. **Water trails** (blue) start with the extensive system identified by the Wood-Pawcatuck Watershed Association, extended with a continuous beach and salt pond route along the coast and another North-South route up Point Judith Pond and the Narrow River.

While most of the existing trails are on public conservation land or water bodies, filling the gaps in the proposed network would require additional easements across private lands, acquisition of important parcels, and coordination of access and parking lot development. Many of these elements could be accomplished in conjunction with preservation activities for natural or cultural resources being considered for other reasons.

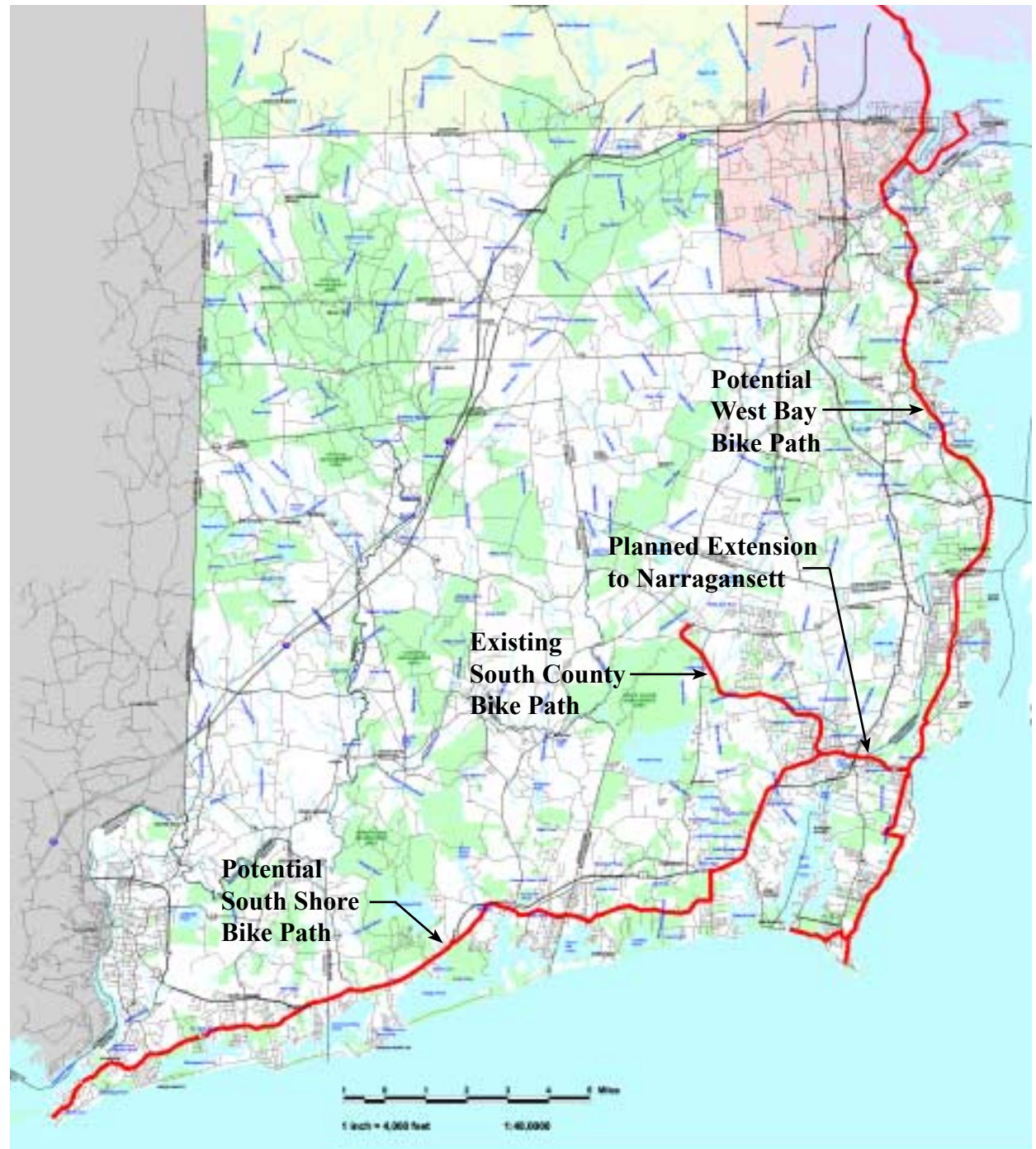




## Targets for Bike Paths and Multi-use Trails

An extensive network of off-road bike paths has been built or planned in northern Rhode Island. There is great potential for a similar network of multi-use trails in South County. Using the Existing South County Bike Path as a starting point, these could extend North and South to connect the historic seaside communities from Westerly through Charlestown to Wakefield, and from Point Judith through Narragansett and Wickford north into East Greenwich, with a potential link to bike paths under construction in Warwick and Coventry. The result would be a boon to local residents, as well as the tourist industry.

The first target is to initiate planning for a **West Bay Bike Path**, which could use a combination of marked on-street routes and off-road paths to connect Point Judith with Goddard Park in East Greenwich. This trail could possibly use some of the historic route of the Seaview Railroad. A second target is to develop a continuous **South Shore Bike Path** parallel to Route 1 and 1A. This could possibly take advantage of some of the existing right-of-way of Rt. 1, as well as adjacent public land, and use some of the quiet streets along the shore as a temporary route. A final target identified in local and regional meetings is the need for an **overpass across Route 1** at Ninigret or Matunuck. This would allow bicycles and pedestrians to safely access the bike path and routes to the beach from the villages and campgrounds north of Rt. 1.

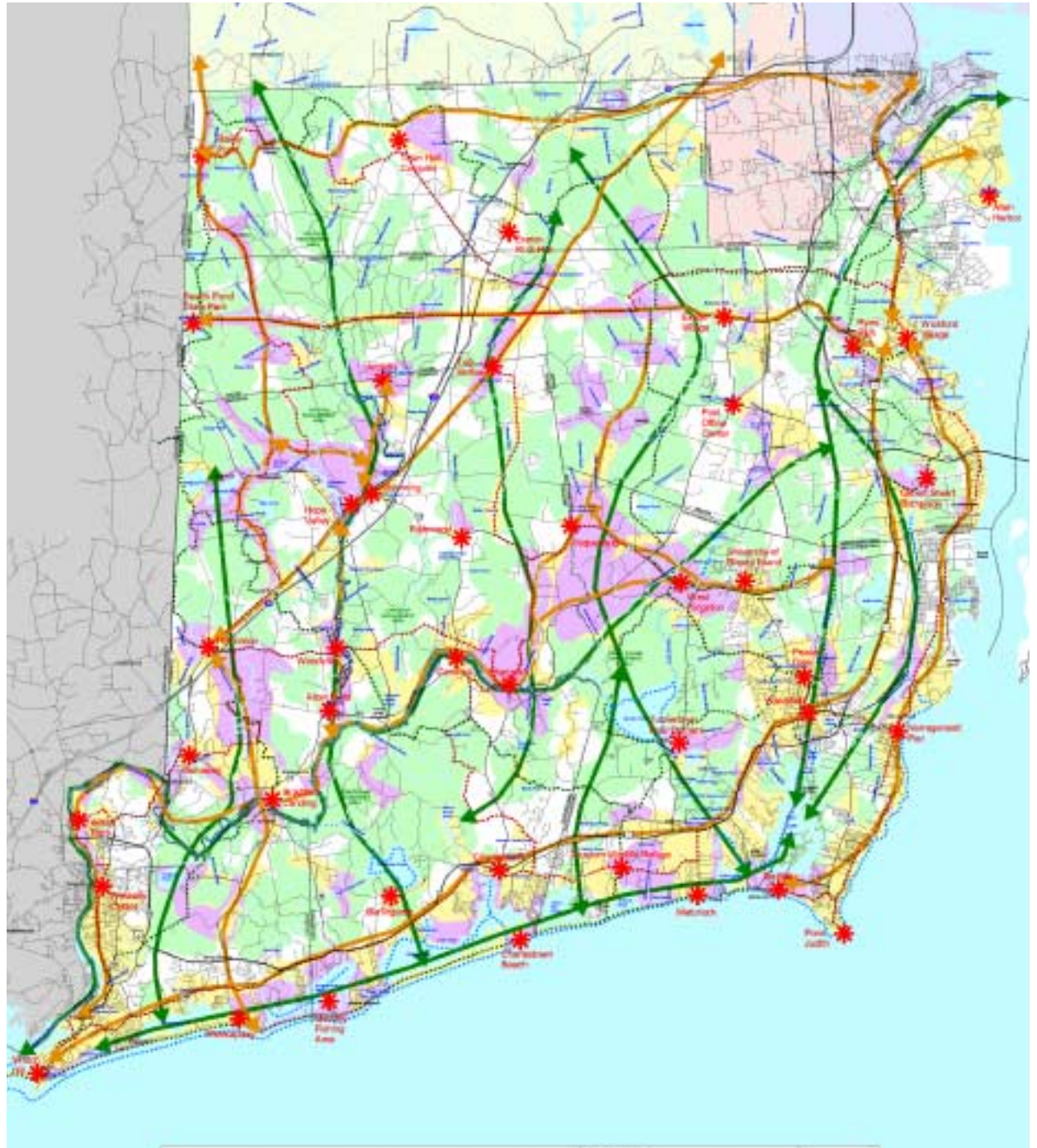




## Composite Resource Priorities

While many groups will continue to base their priorities on a particular mission focus or funding source, one of the goals of this project is to look for areas where Natural, Cultural, and Recreational resources converge. The map at right shows these concentrations of multiple resource types. In light green are the natural resource zones, with dark green arrows showing the natural resource corridors. Important cultural districts are shown in yellow, with cultural corridors in orange. Areas where natural and cultural resources overlap are shown in purple. Finally, recreational hiking, biking, and water trails and destination points are shown.

This map highlights areas and corridors with an unusual concentration of different open space resources: because of the value of these areas to the visual character and quality of life in South County, they should be studied closely as part of an ongoing “landscape preservation plan.” This includes many areas that may have been overlooked in previous conservation efforts: the Chapman Pond-Tomoquag-Canonchet Valley Corridor; the Beaver River Valley; the Usquepaug-West Kingston Agricultural District, and the area between Hope Valley and Arcadia Management Area. Many smaller, but no less important, concentrations occur in each town. Major linking systems which should receive special attention include the Wood-Pawcatuck River and the salt ponds.





## Composite Resource Priorities With Protected Land

Comparing the previous map with this map showing land which is already protected (blue cross-hatching) reveals how few of the areas with both cultural as well as natural resource value have been protected. In fact most of the conservation areas and state management lands are entirely natural. While these have immense value for protection of natural habitat and water supplies, South County's historic landscapes and village centers are vulnerable to continued development.

As shown on the following page, using this analysis, the areas with the highest value for multiple resources and recreational opportunities can be readily identified. Some may be so special or sensitive to development that they need to be protected outright. Most however, can be largely preserved with a combination of acquisition, private management, and careful development that respects the existing character of each site and its context. As described in the next section, there are many tools that towns can use to implement this approach. The process of Greenspace mapping and analysis shown here, however, is a critical step in identifying which tools are most appropriate to any given area or parcel of land.



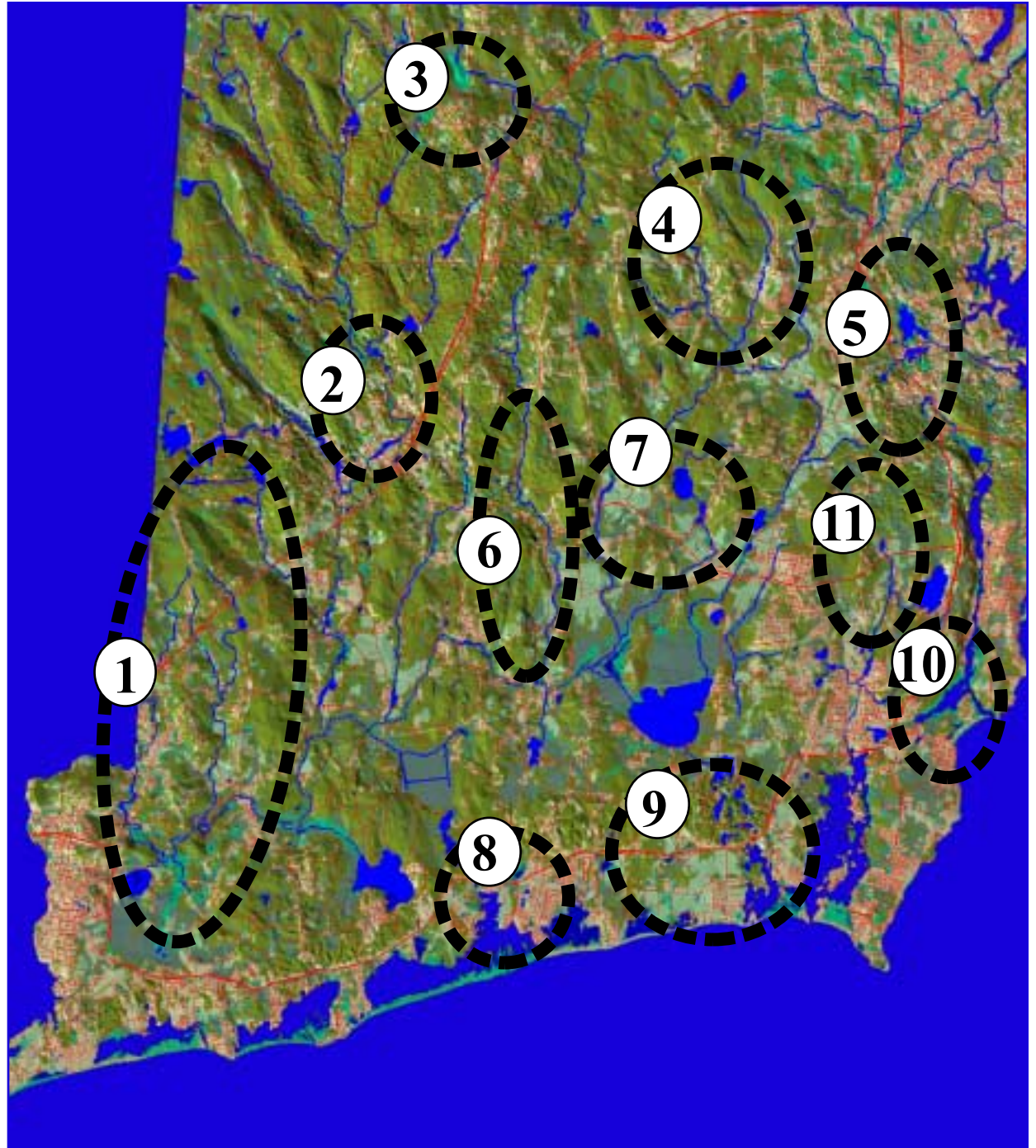


## Landscape Preservation Focus Areas

Comparing the areas with a high concentration of the three resource themes to areas that have been preserved reveals that many of these “Living Museums of the South County Landscape” have been overlooked in previous conservation efforts. As shown at right, these include eleven key areas:

1. Chapman Pond-Tomoquag-Canonchet Valley
2. Hope Valley/Arcadia
3. West Greenwich/Nooseneck
4. Exeter/Queen River
5. Belleville/North Kingstown
6. Beaver River Valley
7. Usquepaug-West Kingston
8. Charlestown/Ninigret Pond
9. Perryville/Matunuck
10. Narragansett/Pettaquamscutt
11. Upper Saugatucket

Further study of these focus areas will reveal many opportunities to combine conservation of sensitive natural resources with protection of historic sites and landscapes. Rich opportunities for recreational development also exist, including providing access to special natural and cultural sites, and building trails for recreation and historical interpretation. At the same time, growth can continue within each area -- but that growth should be focused on revitalized village centers and carefully-planned development in the surrounding countryside.



South County Greenspace Protection Strategy



## IV. Recommendations for Action

This report ends where it began: with the many different local, regional and state agencies that will be acting to implement its recommendations. Each of these entities has a key role to play in realizing the vision for a permanent network of protected open space in South County. In doing so, the players continue to execute their respective missions. In addition, the following recommendations promote new ways to protect greenspace and to encourage the formation of new partnerships between natural, cultural and recreational interests.

This section begins with an overview of well-established acquisition strategies for land protection and continues with specific recommendations to communities based on Randall Arendt's analysis of their local comprehensive land use plans, as well as techniques outlined in the *South County Design Manual*. It concludes with suggestions for many of the agencies, organizations and other groups working to protect natural, cultural and recreational resources in South County.

Before the recommendations are presented it is important to note here that the implementation of this regional greenspace protection strategy occurs under the rubric of state law dealing with greenway protection (The 'Rhode Island Greenways Act of 1995' (R.I.G.L. 42-125)) and local comprehensive land use planning (R.I.G.L. 45-22.2 *et seq.*). Moreover, implementation of this regional strategy represents the realization of statewide greenspace and greenway protection objectives. For instance, the recommendations

### South County Greenspace Protection Strategy



*The complex landscapes of South County cannot be understood from a single perspective: successful conservation will likewise require coordinated efforts in planning, acquisition, and creative growth management.*

below discuss how land protection efforts should focus on protection targets such as riparian corridors and other linkages between important resources to create a network of greenspace, joined by greenways, serving multiple purposes. In addition, this section explains how greenspace planning may occur through the land development process. These strategies are paramount to the realization of the Rhode Island State Guide Plan Element #155: *A Greener Path...Greens-*

*pace and Greenways for Rhode Island's Future* – the State's principal guidance for greenspace and greenway protection. Furthermore, this South County Greenspace Project has made considerable progress in coordinating state agency greenway efforts, assisting local governments and private groups in greenway creation, and providing information to the public on the availability and usage of greenways in Rhode Island – the very goals of the Rhode Island Greenways Council. Therefore, it makes sense that this section on implementing the South County Greenspace Protection Strategy begins with land protection strategies derived from state guidance.

### Acquisition Strategies

The recommendations described below for protecting land are not new. These acquisition techniques are adapted from the Rhode Island State Guide Plan Element #155: *A Greener Path...Greenspace and Greenways for Rhode Island's Future*. This "Land Protection Toolbox – A Compendium of Acquisition and Regulatory Strategies useful in Preserving Greenspace and Assembling Greenways" (See Table I below) lists and describes techniques for greenspace protection that apply to most municipalities, agencies and organizations involved in land protection. It is included here as a reference. For more information on funding sources please refer to the grant guide provided in Appendix II.

**Table I - Adapted from “THE LAND PROTECTION TOOLBOX - A Compendium of Acquisition and Regulatory Strategies Useful in Preserving Greenspace and Assembling Greenways”<sup>1</sup>**

1. Adapted from *Tools and Strategies: Preserving open Space: A Guide for New England*. Taubman Center, Kennedy School of Government, Harvard University and National Park Service. 1992.

<b>Aquisition Strategies</b>	
<b>Technique</b>	<b>Description</b>
Fee Simple Purchase & Variations	Acquisition of full title to land and all rights associates with land.
Fair Market Purchase	Open market or negotiated purchase of full title to land and all rights associated with its use.
Donation/Bargain Sale	Outright gift of full or partial interest in property, or sale of property at less than market cost.
Purchase With Sale or Leaseback Provision	Purchase of full title followed by sale of non-sensitive portion, or leaseback to original owner with restrictive provisions to control future use/ development.
Installment Sale	Allows buyer to pay for property over time
Land Exchange	Swapping of developable parcel for property with conservation value.
Option/Right of First Refusal	Owner agrees to offer designated entity first chance to purchase land before placing on market.
Public Condemnation/Eminent Domain	Taking of private land by governmental entity for legitimate public purpose upon payment of just compensation
Purchase of Development Rights	Right to development purchased while the landowner reserves the rights to exclusive occupancy and limited usage.
Conservation Easements	Partial interest in property purchased or donated to protect its natural or historic features.
Public Access Easement	Provides right for public to access parcel for specific uses.
Joint Use Easement	Combines multiple uses in one easement instrument (e.g., public access with utility corridor easement).
Permits & Licenses	For fee agreements that specify usage conditions for fixed period.
Lease	Legal arrangement for short or long term rental of property.
Management Agreements/ Plans	Agreement between landowner and agency for specific purpose.

## Using Greenspace Planning and Creative Development to Preserve Land

Town governments play key roles, especially planning boards and planners, as the entities that can shape growth through management of the development process through local plans and regulations. The common thread that unites the below recommendations for local communities is the idea of using the Greenspace Planning Process not to stop development, but rather to

guide growth to create vibrant centers while preserving South County’s rural character. Land development by private interests is the primary agent of change that most towns face. Since many more areas have value as open space than can possibly be protected through outright purchase, a comprehensive network of open space – either locally or across the region – will only be realized through a collaboration of towns and developers. Changes to local zoning ordinances, such as Conservation Development,

will make this possible, but by themselves will not create better projects. Likewise, local comprehensive planning often lacks the detail and clarity of direction that helps individual landowners and site planners make good decisions when planning for development. The detailed inventory and resource priority maps created during the Greenspace Project are designed to fill this gap with specific, detailed information that allows Planning Boards, land owners, and developers to see ahead of time where the most important open space resources are in a town. As each property is considered for development, as most inevitably are, the Greenspace Plans provide a starting place for discussions about where development should be placed on a property in order to protect the resources enjoyed by all town residents.

As part of the Greenspace Project, **Randall Arendt** prepared an audit of each town’s comprehensive plan, zoning ordinance and development regulations, with respect to the comprehensive plan’s stated goals of preserving the visual qualities of the Town’s important natural features and scenic roadways, to preserve vegetated buffers between land uses, roads, streams, wetlands, etc., and to provide flexibility to encourage alternative land-use developments. These audits are designed to highlight the areas of local plans and regulations that can make it difficult to protect open space effectively both within individual sites, and as a community-wide network of open space. He prepared two memoranda for each community and made a presentation to the Planning Board in each town. The first document offers broader recom-



mentations (*please see below*) and the more “town-specific” second document (*available from the local planner*) details recommendations for each community. The **key recommendations** shared by multiple towns include:

- Adopt greenspace maps and other applicable recommendations into comprehensive land use plans.
- Develop a town-wide map of Potential Conservation Lands, comparing various levels of protection to degrees of resource value identified through the Greenspace Analysis.
- Update Comprehensive Plan with descriptions of necessary changes to zoning ordinances and subdivision regulations necessary to implement the Conservation Plan.
- Update the Subdivision Ordinance to include a “sketch plan,” Conceptual Master Plan, mandatory site visit, and required site analysis elements, as well as to describe a design process.
- Amend the Zoning Ordinance to incorporate “Growing Greener” mechanisms.
- If it exists in local ordinances, replace “cluster development,” with Conservation Development approach, so that new development will contribute substantially to the community’s overall conservation objectives, adding specific design standards for the quantity, quality, and configuration of subdivision open space that must be delineated, conserved, and related to the community-wide open space network.

- Provide incentives for projects that help accomplish town-wide open space goals.
- Encourage landowner stewardship. Nongovernmental groups, such as land trusts and watershed associations, best carry out such an effort.

### **Creative Land Use Techniques: Recommendations of the South County Watersheds Technical Planning Assistance Project**

In 2001, Dodson Associates completed a project for RIDEM’s Sustainable Watersheds Office that was designed to assemble tools and techniques for more sustainable planning, design and regulation in South County. Developed by a team of designers, planners, water resource specialists, and legal experts, the project produced a series of reports and manuals that were distributed to each of the towns, and which are available from DEM, and can be viewed at: [www.state.ri.us/dem/programs/bpoladm/suswshed/sctpap.htm](http://www.state.ri.us/dem/programs/bpoladm/suswshed/sctpap.htm).

The project was designed to gather the best possible solutions from around the country and show how they could be applied locally. With the participation of an advisory committee of more than sixty town planners, elected officials, and citizens, the consultants prepared a suite of “Smart Growth” tools, including a set of Model Zoning Ordinances, Strategies to promote Farming and Forestry, a study of Transfer of Development Rights, and a Development Site Assessment Guide.

The centerpiece of the effort was the *South County Design Manual*, which demonstrates creative approaches to development and/or revitalization for eight demonstration sites in South County. As shown in the following images from the Manual, the development scenarios for each site were illustrated with aerial perspective drawings and photographs, designed to show how planning and design can work together to build more sustainable communities. In the first example, a typical **rural neighborhood** is shown before and after conventional development. The creative development scenario illustrates how the local greenspace maps could be used to help plan development of individual parcels. With coordinated planning for each property, the development process itself can help preserve permanent town-wide open space networks.

Similarly, significant cultural resources like **historic village centers** can be protected through the development process when towns adopt historic district overlay zones that combine flexible controls on use and density to promote revitalization, with standards for design that protect historic architecture and landscape character. The *South County Design Manual* outlines such planning and design techniques for a ‘Historic Town Center’ with supporting model language for a new zoning to protect village centers - ‘Planned Development District – Village and Neighborhood Sites’ – found in the *South County Technical Planning Assistance Project Model Land Use Ordinances* (page101).



The South County Design Manual was built around eight different sites (top right) chosen to represent a wide range of landscape types and typical planning situations encountered by rural and suburban towns. Each of these hypothetical case studies takes an actual site and shows how it would most likely be developed in today's market, following current zoning and other regulations. A more creative development alternative for each site was drawn up to demonstrate how the same or an even greater amount of development could be accommodated while preserving important resources.

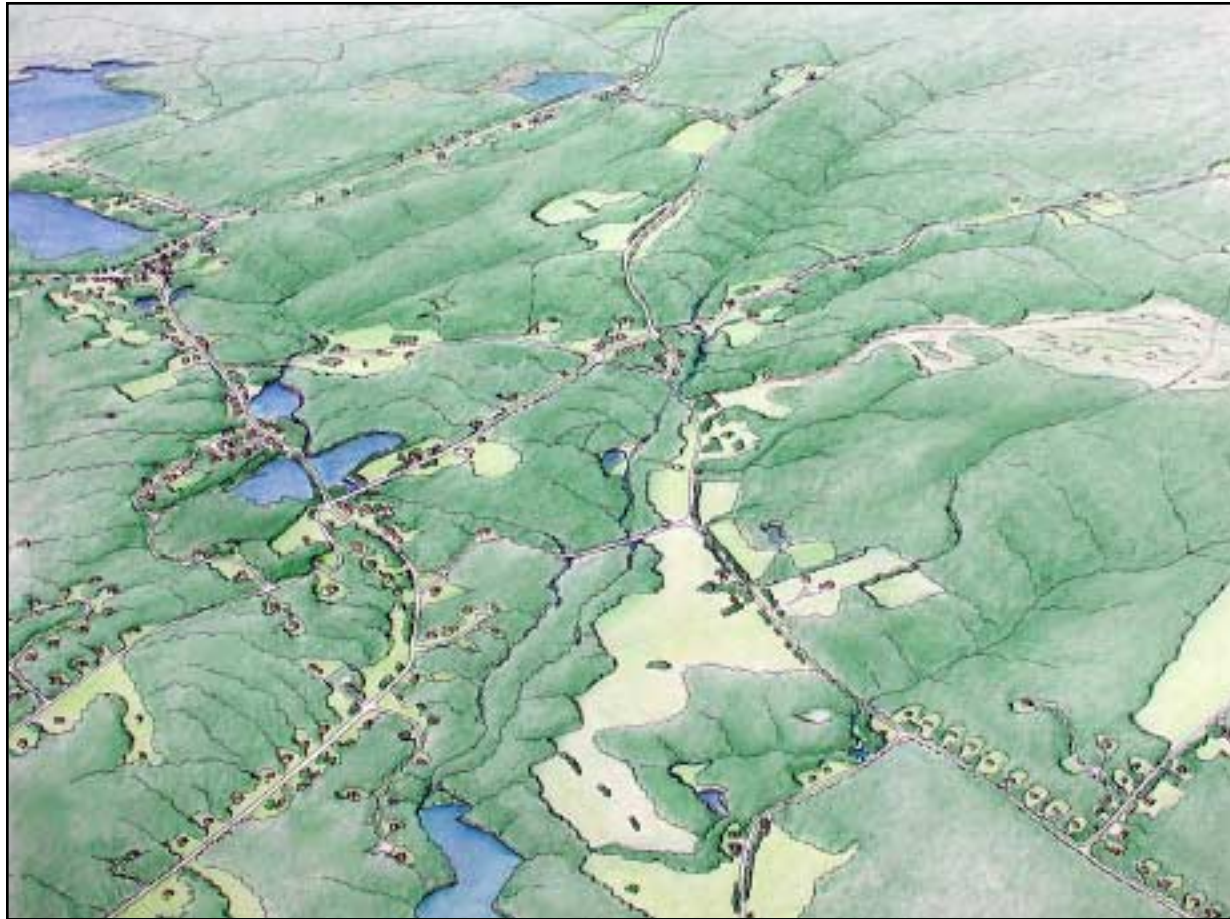
The results graphically illustrate that growth doesn't have to be detrimental to the character and livability of small towns. Indeed, with careful planning and creative regulation, investment in new development can be harnessed to rebuild downtowns, retrofit declining commercial strips, and create wonderful new neighborhoods surrounded by protected open space.



*Many areas of South County identified by local Greenspace plans as important open space resources are also the easiest to develop for large-scale commercial uses. The Design Manual demonstrates how to develop a portion of such areas while allowing traditional open space uses to continue on most of the land.*

**South County Greenspace Protection Strategy**





The Rural Neighborhood site is made up of a mix of open meadows and large forested parcels (at right side of the drawing at left) together with a series of historic mill villages that line an old state highway (left side of the picture). Like many rural areas, there is no single dominant element that generates its rural character; rather, it results from a great variety of natural and historic cultural landscapes within a relatively small area. In this scenario, natural resources include streams, ponds and wetlands, and several large tracts of undeveloped woodland. Cultural resources include village centers, agricultural landscapes and historic mill sites.

These resources are linked together by several types of corridors: streams connect wetlands and waterbodies into an ecological system supporting diverse communities of plants and animals; rural roads link farmsteads and meadows into a continuous agricultural corridor; and old farm and logging roads make an informal network of recreational trails that link existing protected lands with village centers.

Current zoning for the area requires a two-acre minimum lot size, as seen in the recent frontage lots at the lower right and left. Historic lot sizes are either much larger, as seen in the farmstead at the lower left side of the page, or much smaller than two acres, as shown by the aerial view of one of the mill villages, where lot sizes are as small as 5,000 s.f.



Like many rural areas, the diversity of uses and development densities has created a rich visual environment. Much of the land has remained open and in active management for timber harvesting or agriculture, and there is room for both wildlife and people.



Under current zoning, in the **conventional scenario** most of this rural neighborhood would be developed at a density of two acres per unit. Areas with poor soils, steep slopes and difficult access have not been shown as developed: even so, this uncoordinated large-lot development pattern pollutes water bodies, fragments wildlife habitat, and destroys scenic vistas. Any hope of maintaining existing visual character or quality of life would be lost.

The rigid standards of conventional zoning make little sense in such a varied landscape, where suitability for construction varies widely from parcel to parcel. Relatively few large lots are available close to village centers, which ironically have the best infrastructure, road access, and services. It ends up being easier to subdivide the large farms in the countryside, in part because these have the room and free-draining soils necessary for individual septic systems. In order to make money at these densities, developers tend to favor construction of large single-family houses on cul-de-sacs (bottom right and left), which are more likely to produce a profit to offset high per-unit construction costs.

The result of this process is a virtual monoculture of suburban house lots, which fit in neither with the rural landscape in the countryside nor the traditional streetscape of the villages. This ends up destroying the character and sense of place of both environments. Just as problematic, this narrow range of products no longer meets the needs of many existing residents, and caters to an increasingly small segment of the larger marketplace, especially as the regional population continue to age and households shrink.





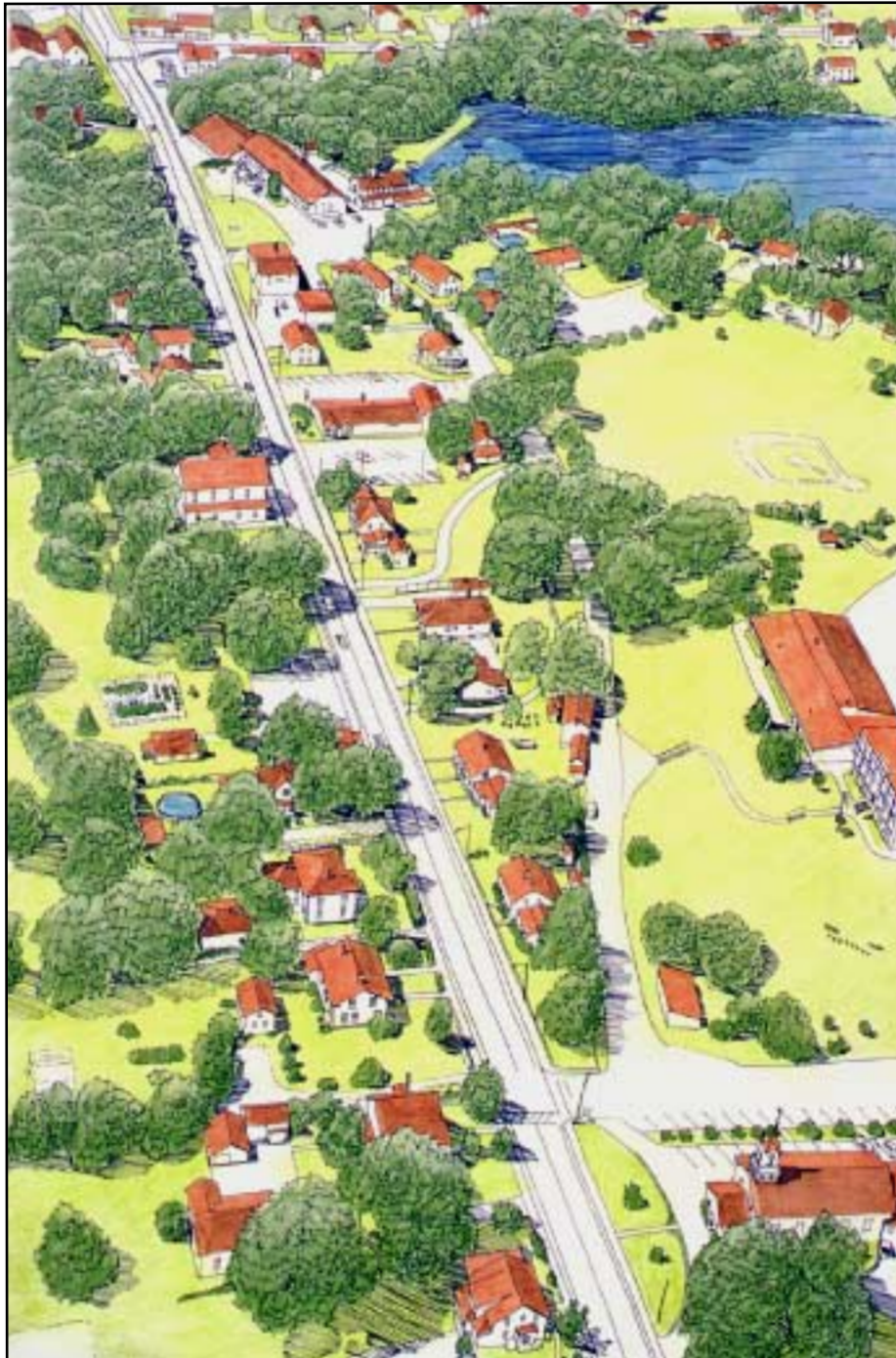


The **creative development scenario** uses the idea of “conservation development” to accommodate the number of units allowed by current zoning while preserving 50-75% of the land available for development on each parcel. What makes this possible are flexible zoning rules that keep the overall 2 acres/unit density while allowing smaller or narrower building lots. What makes it work is a design process that goes beyond the usual engineering to address the visual character of the proposed development and how it fits into its context. Most important, this design process starts with a detailed analysis of natural and cultural resources, and designs the development around the open space, rather than the opposite.

If each subdivision project follows this “conservation design” approach, then the development process itself gradually creates a permanent town-wide open space network. In addition, many towns and counties are beginning to provide guidance for these efforts with plans that identify key open space resources and suggest town-wide open space corridors. By following these plans, developer can avoid sensitive resources, contribute to town goals for open space, and enhance the value of building lots. Thus, while individual house lots may be smaller than two acres, each homeowner shares in the views, character, and recreational potential of the protected open space that surrounds his or her property.

Within each project, the design process takes advantage of the character of the site and its surroundings to create a more attractive and livable neighborhood, which may take the form of a rural hamlet, a shady road through the woods, or a quiet lane on the edge of an existing village -- in each case building *with* the character of the site rather than paving *over* it.





Settled in a dense band of structures lining Main Street, this **historic village** contains a remarkable collection of historic homes, commercial buildings, brick mills, and churches. Visually, this has created a delightful variety in size, shape and architectural styles, held together by the unifying theme of Main Street. Functionally, it is still a 19th century village, with home, school, church, commercial and government uses in close proximity. This creates an eminently walkable community, with a high degree of livability and a strong sense of place. Shops and businesses tend to be small and locally-owned, relying on personal service rather than cheap prices to attract customers. The scale of these businesses is ideal for the Main Street location, where they have the flexibility to fit into



existing storefronts (left), or reuse historic structures (below). Despite the attractions of village centers like this one, growth can be stifled by small lots, lack of parking, and aging infrastructure. What growth there is tends to occur around the edges of the village, where large lots are easier to develop. Open space surrounding the village is lost, together with the traditional character of a community surrounded by open space.

As a result, Main Streets in small towns can remain in suspended animation for years as the fields and forest that surround them are divided up for house lots. Meanwhile, commercial investment is siphoned off to other areas of the town, often on the highway strip outside of the village, or in new industrial parks near the interstate.



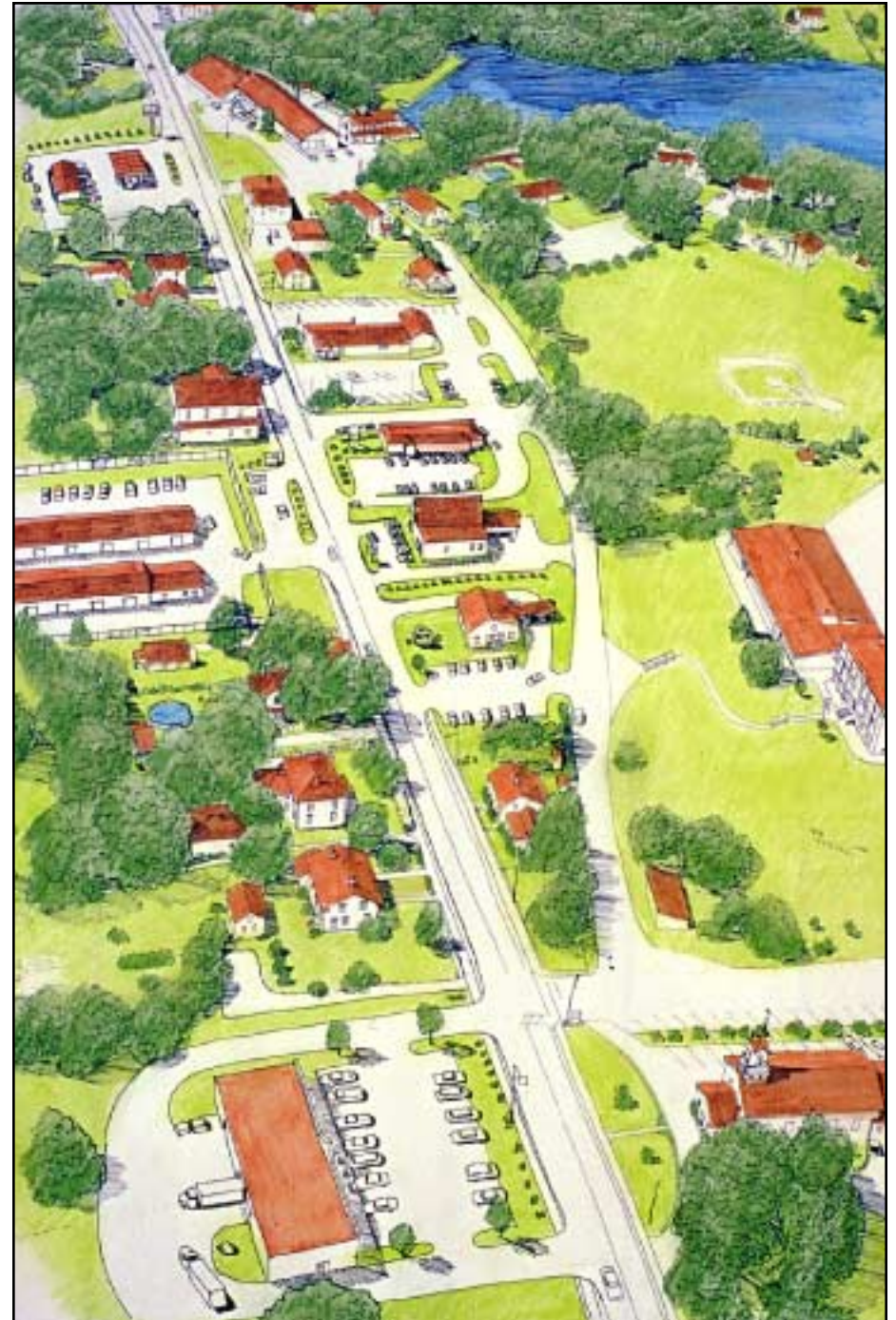


Many factors conspire to produce the **conventional scenario** illustrated at right. Zoning requirements for minimum lot size, frontage and setbacks make it hard to expand on existing lots. Requirements for off-street parking and limits on building coverage can make it even harder to build anything without tearing down existing structures and consolidating lots. Lacking a municipal wastewater system, any change of use can require expensive upgrades to individual systems. Some uses, like restaurants, may be driven out of the village if the lot is too small to install a suitable system.

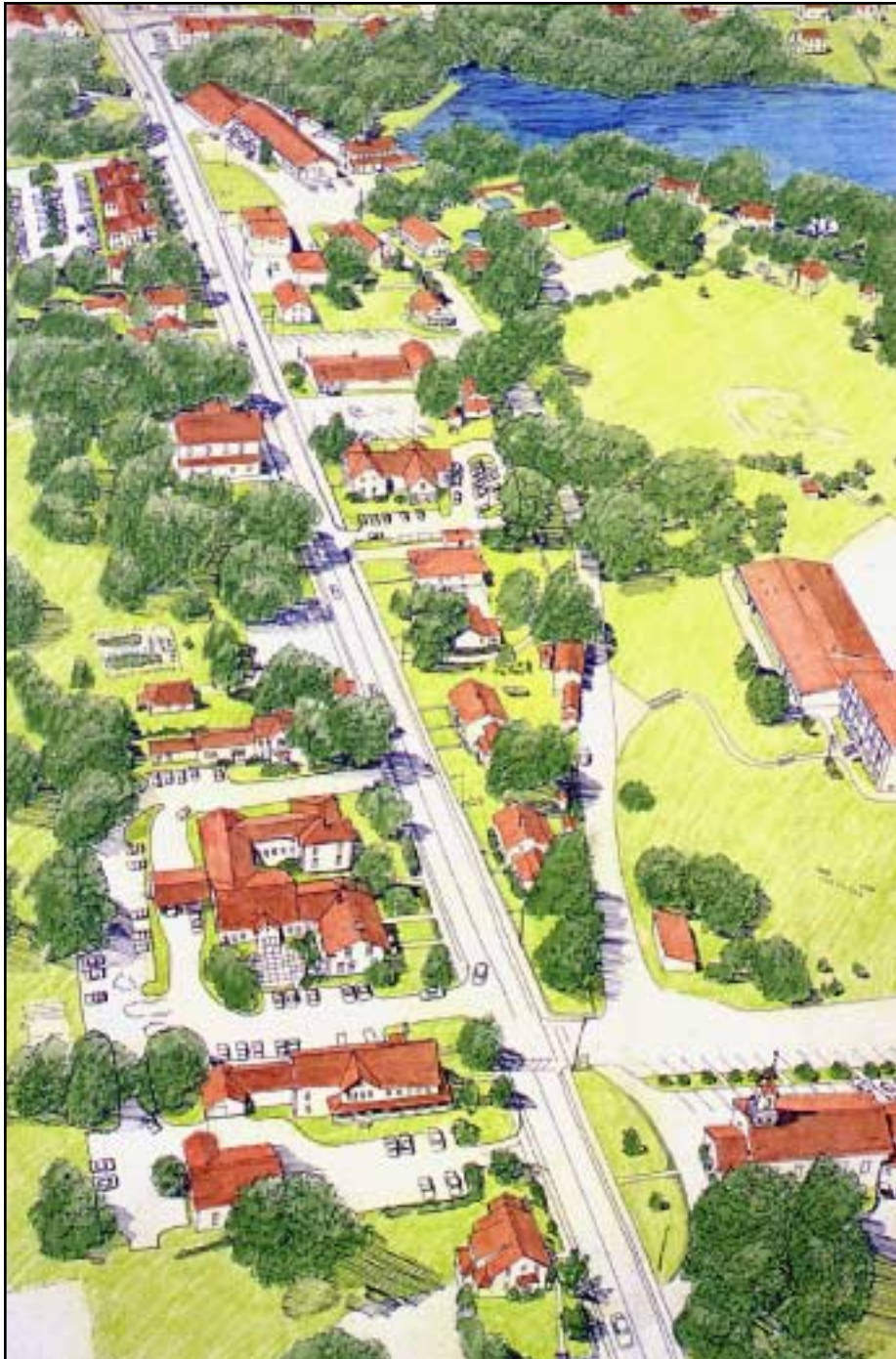
While this has slowed development to some extent, it is only a matter of time before the rewards to developers outweigh the costs of wholesale replacement of existing buildings. It also means that new development is likely to be driven, not by local residents, but by corporations looking to expand franchise gas stations, mini-malls and fast food outlets. The result will be development that does not relate to the existing village in either scale or appearance, which tends to favor automobile access over pedestrians, and which virtually ensures the loss of much of the fine architecture that remains in the village.



These pressures also encourage businesses such as self storage units (below) that certainly contribute economically to the town, but offer little to the character and livability of Main Street. With low overhead and minimal needs for wastewater treatment, this can seem like a perfect choice for the small local business owner who can't get approval for a more traditional Main Street use.







In the **Creative Development Scenario**, the village is revitalized with new homes and businesses carefully designed to fit in with the historic character and pedestrian scale of the village. Rather than tearing down existing buildings, additions are placed to the rear in compatible architectural styles. Larger uses are accommodated by connecting existing buildings together. Meanwhile, careful planning provides the convenient vehicular access and ample parking demanded by growing businesses. At the same time, open space surrounding the village is protected through a combination of acquisition and carefully-planned development. Parks, playgrounds and overlooks are set aside to make the village more livable, and the town's Greenspace plans help to locate potential trail connections.

Shared curb-cuts between parcels reduce conflicts between cars and pedestrians and improve the appearance of the streetscape. Driveway connections cross lot lines, minimizing curb cuts and allowing customers to drive to adjacent businesses without pulling back onto Main Street. Placing drive-through windows at the rear of the buildings allows a function necessary for the success of many modern businesses, while keeping the streetside pedestrian-friendly.

Parking is distributed throughout the village in small lots at the side and rear of structures. This is convenient for customers, and helps to reduce the apparent amount of asphalt. Cooperative agreements between landowners provide for connections across lot lines. The alleys allow customers and service vehicles to travel between businesses without pulling back onto Main Street. Sharing of parking lots is also encouraged, with residents using lots at night that during the day serve neighboring businesses.

This comprehensive approach to providing for parking and vehicular access results in a much more efficient use of space, allowing Main Street to be renovated for the comfort of pedestrians. A "streetscape masterplan" provides for improvements to sidewalks, addition of benches and trash receptacles, and pedestrian-scale street lights that encourage people to walk between uses. Overhead wires are buried, and a comprehensive landscape maintenance plan provides for the care and replacement of street trees. This public investment inspires private investment in storefronts, sidewalk cafes and events that take advantage of a revitalized Main Street environment.





## Recommendations for Groups Involved in Open Space Conservation in South County

As stated in previous sections, there are over a dozen organizations and agencies currently working on the protection (and, in some cases development) of South County's natural, cultural and recreational resources. The following list provides specific suggestions for these groups:

### Local Land Trusts and the Washington County Land Trust Coalition (WCLTC)

- Continue to focus protection efforts on wellhead, aquifer protection, and the biodiversity resources outlined in this plan using state open space grant money.
- Pursue land protection projects with partners with cultural and recreational interests to build a meaningful network of greenspace (e.g. regional greenway) as laid forth in this plan.
- Contribute resources toward a regional land trust coordinator through the WCLTC that provides staff support to the region's land trusts.
- Increase land trust advocacy and education role by assisting local planning boards and departments with greenspace planning activities such as, identifying areas that should be protected for new development projects, GIS, maps and protection strategies.

- Coordinate development of interpretive trails with protection of scenic and historic landscape corridors.



### Washington County Regional Planning Council

- Encourage communities to adopt conservation development and other creative land use techniques into local planning and zoning.
- Coordinate greenspace protection activities with the Washington County Land Trust Coalition.
- Create WCRPC Subcommittee to discuss the merit and feasibility of forming a regional cultural and historical preservation commission (e.g. Washington County Historic and Cultural Landscape Preservation Commission) to focus on, land use planning and development issues that impact community character; celebrating and protecting historic town and village centers and rural landscapes and the quality of life they provide; documenting cultural landscape

resources and conducting outreach to towns to create management plans for key resources areas.

- Assess the possibility of regional tax sharing to pursue regional strategies for economic development such as, clustering growth into areas with existing development and infrastructure.
- Lead an action team consisting but not limited to the South County Tourism Council, RI Rural Development Council, the chambers of commerce and RIEDC to develop tourism around South County's heritage, natural wealth and recreational opportunities.
- Coordinate combined implementation with Sustainable Economy Project.

### Watershed Organizations

- Watershed organizations can play a key role in supporting greenspace protection by promoting the use of creative land use techniques to protect land while it is developed.
- Creating and implementing watershed actions that outline key watershed issues and actions, watershed organizations bring financial and technical assistance to the region to improve riparian access, water quality and recreational opportunities - all integral pieces to the protection and management of greenspace in South County. The four watershed organizations in South County – Narrow River Preservation Association, Salt Ponds Coalition, Saugatucket

River Heritage Corridor Coalition, Wood Pawcatuck Watershed Association – could play a key role in implementing this greenspace protection strategy by including the following items in their watershed action plans, where applicable:

- Pursue money/projects with partners like NRCS and RIDEM through Farm Bill 2002 funds to protect riparian corridors, to improve access points to rivers and to restoration riparian habitats and riverbanks.
- Improve river access with planning and site development, building on the recent work of the Wood-Pawcatuck Watershed Association to evaluate existing and potential access points. (See APPENDIX II - ‘Public Small Craft and Fishing Access Points on the Wood and Pawcatuck Rivers.’ Wood-Pawcatuck Watershed Association. November 2001.)
- Identify existing protected areas suitable for access improvements, parking, and facilities development.

#### **South County Tourism Council**

- Tie marketing materials to resources identified in the Greenspace Project to promote South County as a destination for eco-tourism, cultural tourism, and sustainable recreation for hikers, bikers, and boaters.
- Work with Washington County Regional Planning Council, RI Rural Development Council and others to foster sustainable growth of the region’s tourism economy.
- Create maps and interpretive materials

to help visitors find and enjoy these resources.

- Promote heritage tourism to state and local hospitality industry and economic development organizations.



#### **The Nature Conservancy**

- Continue support and capacity building of local, regional and statewide land trusts and coalitions.
- Continue to expand the current protected cores of the Queens River Watershed Borderland and Matunuck Hills preserves.
- Work with towns to incorporate flexible development controls to encourage private efforts to protect the Queen River system.

#### **RI Audubon Society**

- Continue educating the public about South County’s natural heritage.
- Pursue expansion and linkages of existing preserves in the Queens River watershed.

#### **RI Historical and Heritage Preservation Commission**

- Support regional cultural and historical preservation efforts.
- Digitize, update and map in RIGIS all RI historical and cultural inventories for the towns of Washington County.
- Provide municipalities with technical assistance to create and adopt historic and cultural preservation [overlay] zoning to help protect community character.

#### **RI Department of Environmental Management**

- Focus acquisitions in *Biodiversity Focus Areas* such as, the Western Forest, Pawcatuck River and South Coastal area with an emphasis on expanding state protected areas such as Carolina, Burlingame, Arcadia (See ‘Protecting Our Land Resources – A Land Acquisition and Protection Plan for the Rhode Island Department of Environmental Management.’ RIDEM. May 1996. Pages 22 – 27.).
- Provide incentives to municipalities, land trusts and other organizations with additional points for open space and recreational grant applications that implement the South County Greenspace Project.
- Continue to coordinate with local land trusts and other partners to focus local protection efforts.
- Continue to support the Washington County Land Trust Coalition with GIS technical support and coordination with other agencies



and organizations.

- Acquire land that protects aquifers, riparian corridors and regional greenway networks.
- Improve river access with planning and site development, building on the recent work of the Wood-Pawcatuck Watershed Association to evaluate existing and potential access points. (See 'Public Small Craft and Fishing Access Points on the Wood and Pawcatuck Rivers.' Wood-Pawcatuck Watershed Association. November 2001.)
- Identify existing protected areas suitable for access improvements, parking, and facilities development.
- Work with USDA-NRCS and landowners to secure easements to protect the riparian buffer zone using Farm Bill 2002 funds.
- Utilize recreational grant program to promote the development of bikeways, hiking trails and water trails.
- Coordinate with RI Trails Advisory Committee to give priority consideration to trail and bikeway projects identified in this regional greenspace protection strategy.

#### **RI Water Resources Board**

- Purchase land or conservation easements around 14 potential wellheads in the Wood, Queens and Beaver Sub-basins.
- Continue statewide water use availability studies and modeling efforts including optimization modeling in the Pawcatuck Watershed.

- Continue to work with local suppliers through set-aside funds that are leveraged for watershed land acquisitions or water quality improvements.
- Develop water allocation program.



- Manage drought events and implement strategies to mitigate future droughts as the lead agency for the Drought Steering Committee.
- Update GIS information for the entire State including Washington County regarding water district boundaries, water lines in roads and pumping points.
- Promote education and outreach activities regarding the value of water, the availability of supply in relationship to demand, the cost to produce water and maintain reliable infrastructure, the effect of water use on the environment and the need to conserve the resource, especially during dry periods.
- Continue to administer the water supply planning process for the states' twenty-nine systems who's plans contain historical

and current data regarding source water, infrastructure, production data, volume of water withdraw, water use by category, water quality, supply and demand management.

- Manage the Feasibility of Supplemental Water Supply Study, which identifies additional water supplies and delivery systems in the amount of 50-million gallons per day for emergency purposes.

#### **Statewide Planning**

- Utilize the South County Greenspace Project's data and recommendations in defining regional resource protection goals and priorities in future updates of State Guide Plan elements, including the State Land Use Plan, and Greenspace and Greenways Plan.
- Cooperate with regional planning groups, state agencies, communities, and private interests to assess the means for developing a regional cultural heritage and land management plan for the Pawcatuck River Valley, which could be presented for adoption as a State Guide Plan element.
- Work with DEM to insure that appropriate digital data developed by the South County Greenspace Project is fully documented and incorporated into the RIGIS system for availability to others.
- Work with communities through the local comprehensive planning process to advance the integration of key recommendations of the South County Greenspace Project into local comprehensive plans, as appropriate,

for implementation via local land management ordinances.

#### **RI Greenways Council**

- Continue to support the development of regional trail systems, building off of existing North-South Trail, South County Bike Path, etc. (See State Guide Plan Element 155, Report Number 84, 'A Greener Path... Greenspace and Greenways for Rhode Island's Future.' November 1994. Pages 7.1 – 7.6).
- Support the efforts of state agencies, local trail groups, and other local stakeholders for construction and maintenance of specific segments of hiking and biking trails presented in this report.
- Support and coordinate efforts to develop interpretive materials for natural and cultural resources along trails.
- Coordinate with efforts to develop unified signage and wayfinding materials.
- Coordinate with other partners to complete the South Kingstown Trail (Trustom -> Perryville – Great Swamp -> Rt. 138 Farms -> Eppley to Yawgoo Pond in Exeter.
- Cooperate with RIDEM, South Kingstown Land Trust, Audubon Society of RI on trail planning and construction to extend existing trail systems north and south of Worden Pond.

#### **US Fish & Wildlife Service**

- Expand and consolidate Refuge Complexes, including Pettaquamscutt (Chafee National Wildlife Refuge), Trustom Pond NWR, and Ninigret NWR (See U.S. Fish & Wildlife Service. December 2000. Rhode Island National Wildlife Refuge Complex – Draft Comprehensive Conservation Plan and Environmental Assessment. USFWS. Hadley, MA.).
- Continue to coordinate with local partners to implement the *Final Comprehensive Conservation Plan* for the RI NWR Complex.

#### **USDA Forest Service**

- Support the Forest Legacy Program.



#### **APPENDIX I**

One Region, Many Players – An Overview of Project Partners

#### **APPENDIX II**

South County Greenspace Project Grant Guide

#### **APPENDIX III**

“Priorities for Improving Small Craft Access and Controlling Erosion on the Wood and Pawcatuck Rivers” Wood Pawcatuck Watershed Association, November 2001. Richmond, Rhode Island.





## Appendix 1: One Region, Many Players -- An Overview of the Greenspace Project Partners

The South County Greenspace Project rides on the heels – indeed stands on the shoulders – of the many federal, state, regional, and local groups and agencies that are already involved in conservation and management of open space in South County. These include government agencies at all levels, from the federal Department of the Interior to the local Planning Boards and Conservation Commissions, and non-governmental groups from the globally-active Nature Conservancy, to the Audubon Society of Rhode Island, down to local land trusts active in almost every town. Each of these entities has an established mission and methodology for setting priorities for open space conservation. By way of an introduction of what these groups might do to work together to implement the recommendations of this report, what follows is a brief review of who they are and what they are doing.

One of the more active federal agencies in South County is the **United States Fish and Wildlife Service**. A service of the Department of the Interior, the Fish and Wildlife Service's mission focuses on "working with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people." As part of that effort, the service manages a National Wildlife refuge system of 93 million acres, and operates more than 200 fish hatcheries, field offices and ecological service field stations. Locally, the Fish And Wildlife Service manages a complex of five refuges in Rhode Island from a regional office in Charlestown, and is in the process

of developing a visitor's center adjacent to Burlingame State Park. Local managers are working with landowners surrounding these existing refuges to enhance protection of some of South County's most important natural areas.

Another federal agency active in conservation is the **US Forest Service**, part of the United States Department of Agriculture. The Forest Service was established in 1905 "to provide quality water and timber for the Nation's benefit." As managers of 191 million acres of forest and rangeland, the Forest Service's mission has evolved over the years to include recreation, protection of wildlife habitat, and education – but always with founding director Gifford Pinchot's overarching goal in mind: "to provide the greatest amount of good for the greatest amount of people in the long run." Part of that continuing effort is promoting sustainable use of forests in more densely populated states like Rhode Island – which is one reason they sponsored the South County Greenspace Project.

Like the US Forest Service, the mission of the Rhode Island Department of Environmental Management has broadened and deepened over the years to incorporate diverse interests in environmental protection, management of forests and farmland, and recreation. Indeed, RIDEM's Sustainable Watersheds Office has been at the forefront of efforts to promote sustainable growth in South County, obtaining funding and managing both the South County

Watersheds Technical Planning Assistance Project, and this South County Greenspace Project. Numerous other offices within RIDEM are involved in acquisition and management of open space: The Division of Forest Environment manages 40,000 acres of forestland owned by the state, and works with private landowners to conserve forest resources. The Forest Environment Program also monitors forest health, runs an Urban and Community Forest Program, licenses arborists, enforces laws, and provides forest fire control. Under the Forest Legacy Acquisition Program the Division preserves key forest tracts, especially within and adjacent to existing state forests. RIDEM's Division of Fish & Wildlife, like its federal counterpart, is charged with protecting and managing fish and wildlife resources within 24 management areas totaling over 46,000 acres. Their mission is "to ensure that the Freshwater, Marine, and Wildlife Resources of the State of Rhode Island will be conserved and managed for equitable and sustainable use." The Division of Fish & Wildlife pursues research, education, fish hatcheries and stocking programs, habitat restoration, public angling and hunting programs, and development of public access, including over 100 boat launching ramps and shore fishing areas.

**The Rhode Island Natural Heritage Program** is another RIDEM program, whose mission is to develop and maintain "a comprehensive statewide inventory of Rhode Island's rarest and most vulnerable natural features." The program maintains an extensive database about

rare species and the ecosystems on which they depend, helps review open space acquisitions, and conducts annual surveys to increase the state's knowledge of biological resources. To coordinate the activities of the different divisions in acquiring land, the **Land Acquisition and Real Estate Office** employs four state or federal programs to fund open space purchases: The Agricultural Land Preservation Program, which purchases farmland development rights; the State Land Acquisition Program, which "uses state, federal and foundation funds to acquire property for recreation, hunting, fishing, and other outdoor activity"; the Forest Legacy Program; and the North American Wetland Conservation Act, which uses federal funds to preserve waterfowl habitat.

The **Rhode Island Water Resources Board (RIWRB)** is an executive agency in state government charged with managing the proper development, utilization and conservation of water resources. Its primary responsibility is to ensure that sufficient water supply is available for present and future generations, apportioning the available water to all areas of the state, if necessary. The RI WRB and the **RI Water Resources Board Corporate** have broad authority in planning, developing, and managing public water supplies deriving its' powers, duties & regulatory authority from RI General Laws §46-15 et seq. This agency also acquires land, water rights, and easements for all water supply needs; design and/or construct water supply facilities; lease, sell or effect mergers of water supply systems; and loan or borrow

money for water supply facility improvement and land acquisition to protect watersheds. The agency works in partnerships with the twenty-nine major public water suppliers in the state to accomplish many objectives. RIWRB's **Property Management Division** is charged with managing and protecting the **Big River Management Area (BRMA)**, which consists of approximately 8600 acres of open space. The BRMA's intended use designation remains water oriented but the agency has in place a framework to evaluate suitability and permissibility of various land uses such as water resource management, wildlife management, forestry, historical preservation and environmental education.

Until fairly recently, most government-sector planning in South County happened either as part of Statewide plans or within the borders of individual towns. The **Washington County Regional Planning Council** was established to bridge this gap, with the goal of "balancing growth and preservation to achieve a sustainable future." Made up of representatives from each of the county's nine town councils, the Planning Council in 2000 published "A Shared Future: Washington County in 2020," which expresses a common vision for the region developed during several years of meetings, public workshops and extensive interviews of key stakeholders. This shared vision includes "clean and plentiful waters...a landscape of village centers and open spaces... a healthy economy... diversified housing choices... [and] safe and efficient transportation." The South County Greenspace

Project, together with a companion study of economic development sponsored by Grow-Smart Rhode Island are the initial steps in implementing the Planning Council's Vision.

Private conservation groups have a long history in Rhode Island, starting with the **Audubon Society of Rhode Island**, which was founded in 1897 to stop the practice of killing wild birds for their feathers. Since that time, the Society's mission has grown to include environmental education and advocacy, field programs, and a system of public refuges. In South County, Audubon has a particular concentration of refuges along the main stem of the Queen River in Exeter, and continues to be a vital watchdog in the areas of wetland protection, habitat protection for rare birds and amphibians, water quality and environmental pollution.

The **Nature Conservancy** came much more recently to Rhode Island, but with a focus on protecting land through direct acquisition has managed to preserve over 20,000 acres. Some of these projects helped other state and local agencies expand existing preserves, and the group manages 15 of its own properties around the state through its headquarters in Providence. The Nature Conservancy is unique in taking a truly bioregional perspective on its programs, and in Rhode Island this has led to several regional initiatives. The first is an ongoing project to protect the Queen River, which they consider one of the healthiest in the state. The second is an even larger conservation initiative called the Pawcatuck Borderlands, which seeks



to preserve the large areas of undeveloped forest on the Rhode Island/Connecticut Border, which they have identified as one of the last extensive hardwood forests in New England.

The **Wood-Pawcatuck Watershed Association** was created in 1984 as an advocate for the unique environment of the Wood-Pawcatuck River Watershed. Since that time, WPWA has expanded in scope and staff, and is active in education and outreach, water-quality monitoring, a development of river access and management plans. During 2000 and 2001 WPWA developed a Pawcatuck Watershed Action Plan to address three priority issues: “riparian corridor protection, water quality monitoring, and protection of water quality and equitable allocation of water during droughts.”

On the Eastern side of the county, the **Narrow River Preservation Association** pursues a mission “to preserve the quality of the communities and natural environment within the Pettaquamscutt (Narrow River) Watershed.” Like the Wood-Pawcatuck group, the NRPA acts as a clearinghouse of information, education and outreach, and coordinates activities of local, state, and federal agencies in monitoring change in the area and advocating for conservation issues. The allied **Narrow River Land Trust** works with landowners to secure donations of land and development rights; a process that has ensured protection of nearly 500 acres of land.

Another river-focused group is the **Saugatucket River Heritage Corridor Coalition**. Dedicated

to the care and celebration of a more urbanized river with a rich cultural history, the SRHCC works “to create partnerships among diverse stakeholders and have grown to include representatives of fifteen neighborhood, civic and other organizations interested in the welfare of the watershed...” The groups goals include “To provide a forum for views and attainment of consensus on uses of the river and its immediate environs; To seek funding for projects to improve access for conservation sensitive uses; To increase the river’s value as a source of scenic enjoyment; To increase public awareness of the river’s cultural history; To promote economic well being through sustainable business.”

The **Salt Ponds Coalition** was created in 1986 “to act as a focal point for programs designed to preserve nine coastal salt ponds along Rhode Island Atlantic coastline.” Recognizing that these are valuable economic resources to the tourism and fisheries industries, as well as unique ecosystems, the Coalition pursues a mission of education and environmental protection, with an emphasis on coordinating the activities of state and federal agencies with local plans and projects. They are active in volunteer monitoring of water quality, restocking of shellfish, and working with landowners, cooperative extension, and RIDEM on new approaches to septic education and wastewater management in sensitive coastal areas.

Along with these state and regional agencies and conservation groups, nearly every South County Town has an active public or private land trust working to preserve land. These

include the **South Kingstown Land Trust**, the **South County Conservancy**, the **North Kingstown Land Conservancy**, the **Richmond Rural Preservation Land Trust**, the **Hopkinton Land Trust**, the **Westerly Land Trust**, and the **West Greenwich Land Trust**. Each of these groups has a specific mission, but most focus on protection of open space containing natural, cultural and recreational resources. Most work closely with local boards and commissions, but take advantage of a Land Trust’s ability to act quickly to protect key parcels of land when they come on the market, to accept donations of land and money, to hold development rights and conservation restrictions, and to advocate for conservation issues.

To coordinate the work of these local land trusts, the **Washington County Land Trust Coalition** was formed in 2000 to encourage and coordinate land protection efforts across town boundaries. Organized by a memorandum of agreement among six land trusts, the WCLTC meets regularly with several partner organizations to pursue shared planning and conservation projects.

## Appendix 2: South County Greenspace Project Grant Guide

Resource protection—be it natural, cultural, or recreational—is a large task for any one individual or organization to take on. It is important to remember that the South County Greenspace Project is a collaboration of efforts from many players. In most cases, implementation of these strategies would be difficult without a partnership through financial assistance. This grant guide has been developed to assist municipalities, local groups, and individuals in finding sources of funding for conservation and open space management efforts. The grant guide includes federal, regional, and private sources of funding. For ease in locating applicable funding, the sources are categorized by protection targets, and wherever possible Internet links are provided.

### Helpful general references on funding and grant writing assistance:

U.S. Environmental Protection Agency's Catalog of Federal Funding Sources for Watershed Protection -- <http://www.epa.gov/owow/watershed/funding.html>

Advisory Council on Historic Preservation -- <http://www.achp.gov/funding.html>

Catalog of Federal Domestic Assistance (CFDA) -- <http://www.cfda.gov/>

The Foundation Center -- <http://fdncenter.org/>

The River Network -- <http://www.rivernetwork.org/library/libfundir.cfm>

Environmental Grantmakers Association -- <http://www.ega.org/>

### AGRICULTURE

#### **Environmental Quality Incentives Program**

U.S. Department of Agriculture  
Natural Resources Conservation Service  
P.O. Box 2890  
Washington, DC 20013-9770  
Tel: (202) 720-1873  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/incentive.html>

#### **Sustainable Agriculture Research and Education**

U.S. Department of Agriculture  
Cooperative State Research, Education, and Extension Service  
Stop 2223  
Washington, DC 20250-2223  
Tel: (202) 750-5203  
Email: [vberton@wam.umd.edu](mailto:vberton@wam.umd.edu)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/agresearch.html>

#### **Emergency Conservation Program**

U.S. Department of Agriculture  
Farm Service Agency  
Stop 0513  
Washington, DC 20013  
Tel: (202) 720-6221  
Email: [info@fsa.usda.gov](mailto:info@fsa.usda.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/conserv.html>

#### **Jessie Smith Noyes Foundation**

6 East 39<sup>th</sup> Street, 12<sup>th</sup> Floor  
New York, NY 10016

Tel: Stephen Viederman, President (212) 684-6577  
Tel: Victor DeLuca, Sustainable Agriculture Program Director (212) 684-6577  
Email: [noyes@noyes.org](mailto:noyes@noyes.org)  
Internet: <http://www.noyes.org/>

#### **Lindbergh Foundation**

2150 Third Avenue North, Suite 310  
Anoka, MN 55303-2200  
Tel: (763) 576-1596  
Fax: (763) 576-1664  
Email: [info@lindberghfoundation.org](mailto:info@lindberghfoundation.org)  
Internet: <http://www.lindberghfoundation.org/grants/>

#### **Patagonia Environmental Grants Program**

Patagonia, Inc.  
PO Box 150  
Ventura CA, 9300  
Tel: Jil Zilligen or John Sterling (805) 643-8616  
Internet: [http://www.patagonia.com/enviro/enviro\\_grants.shtml](http://www.patagonia.com/enviro/enviro_grants.shtml)

#### **Phillip Morris Companies**

Attn: Environmental Program Area Manager  
120 Park Avenue  
New York, NY 10017  
Tel: 1-800-883-2422  
Internet: [http://www.philipmorris.com/philanthropy/philanthropy\\_main.asp](http://www.philipmorris.com/philanthropy/philanthropy_main.asp)

### CAPACITY BUILDING AND GENERAL OPERATIONAL SUPPORT

#### **The Grantee Exchange Fund**

c/o Common Counsel Foundation  
1221 Preservation Parkway  
Oakland, CA 94612



Tel: Ann Dowley, Executive Director (510) 834-2995  
Email: [ccounsel@igc.org](mailto:ccounsel@igc.org)  
Internet: <http://www.commoncounsel.org/pages/foundation.html#grantee>

**Environmental Support Center (ESC)**

4420 Connecticut Avenue, NW Suite 2  
Washington, DC 20008  
Tel: (202) 331-9700  
Fax: (202) 331-8592  
Email: [lmclark@envsc.org](mailto:lmclark@envsc.org)  
Internet: <http://www.envsc.org/>

**Rhode Island Foundation**

One Union Station  
Providence, RI 02903  
Tel: Ron Thorpe, Vice President (401) 274-4564  
Email: [imerchan@rifoundation.org](mailto:imerchan@rifoundation.org)  
Internet: <http://www.rifoundation.org/npi.html>

**New England Grassroots Environmental Fund**

PO Box 1057  
Montpelier, VT 05601  
Tel: Cheryl King Fisher, Fund Coordinator (802) 223-4622  
Fax: 802-229-1734  
Email: [info@grassrootsfund.org](mailto:info@grassrootsfund.org)  
Internet: <http://www.grassrootsfund.org/>

**Roberta M. Childs Charitable Foundation**

PO Box 639  
North Andover, MA 01845  
Tel: John McClintock (978) 685-4113

**Henry R. Kendall Foundation**

176 Federal Street  
Boston, MA 02110  
Tel: Theodore M. Smith, Director (617) 951-2525

Fax: (617) 443-1977  
Internet: [www.kendall.org](http://www.kendall.org)

**Tom's of Maine**

PO Box 710  
Kennebunk, ME 04043  
Tel: (207) 985-2944  
Fax: (207) 985-2196  
Internet: [http://www.tomsofmaine.com/about/grant\\_guidelines.asp](http://www.tomsofmaine.com/about/grant_guidelines.asp)

**EDUCATION AND RESEARCH**

**National Center for Preservation, Technology, and Training Grants**

National Park Service  
NCPTT  
645 College Avenue  
Natchitoches, LA 71457  
Internet: [http://www.ncptt.nps.gov/about\\_pttgrants\\_fs.stm](http://www.ncptt.nps.gov/about_pttgrants_fs.stm)

**Environmental Education Grants Program**

Office of Environmental Education (1704)  
Environmental Education Grants  
Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460  
Tel: (202) 260-8619  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/envedu.html>

**Science to Achieve Results**

National Center for Environmental Research and Quality Assurance (8701)  
Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460

Tel: (800) 490-9194  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/science.html>

**Learn and Serve America Program**

Corporation for National Service  
1201 New York Avenue, NW  
Washington, D.C. 20525  
Tel: (202) 606-5000  
Internet: <http://www.learnandserve.org/>

**Educational Foundation of America**

35 Church Lane  
Westport, CT 06880  
Tel: Diane M. Allison, Executive Director (203) 226-6498  
Fax: (202) 331-8592  
Email: [efa@efaw.org](mailto:efa@efaw.org)  
Internet: <http://www.efaw.org/>

**Captain Planet Foundation**

c/o Sona Chambers, Director  
One CNN Center  
Atlanta, GA 30303  
Email: [captain.planet.foundation@turner.com](mailto:captain.planet.foundation@turner.com)  
Internet: <http://www.turner.com/cpf/>

**National Environmental Education and Training Foundation (NEETF)**

1707 H Street, NW, Suite 900  
Washington, DC 20006-3915  
Tel: 202-833-2933  
Fax: 202-261-6464  
Email: Samantha Blodgett, Grants Coordinator  
[blodgett@neetf.org](mailto:blodgett@neetf.org)  
Internet: <http://www.neetf.org/Grants/index.shtm>

**Oracle Corporate Giving Program**

500 Oracle Parkway, Mail Stop 50P11

Redwood Shores, CA 94065

Internet: <http://www.oracle.com/corporate/giving/community/index.html?content.html>

### **IBM Corporation**

Corporate Community Relations and Public Affairs  
590 Madison Avenue  
New York, NY 10022  
Email: [askibm@vnet.ibm.com](mailto:askibm@vnet.ibm.com)  
Internet: <http://www.ibm.com/ibm/ibmgives/grant/grantapp.html>

## **FLOOD PROTECTION AND DAM SAFETY**

### **Watershed Protection and Flood Prevention Program**

Department of Agriculture  
Natural Resources Conservation Service  
P.O. Box 2890  
Washington, DC 20013-9770  
Tel: (202) 720-3534  
Email: [rcollett@usda.gov](mailto:rcollett@usda.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/prevent.html>

### **Flood Mitigation Assistance Program**

Federal Emergency Management Agency  
Mitigation Directorate  
500 C Street, SW  
Washington, DC 20472  
Tel: (202) 646-4621  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/flood.html>

### **Project Impact Grant Program**

Federal Emergency Management Agency  
500 C Street, SW  
Washington, DC 20472

Tel: (202) 646-4600

Email: [eipa@fema.gov](mailto:eipa@fema.gov)

Internet: <http://www.fema.gov/impact>

### **Ronald G. Fascher, P.E.**

Chief, Planning Services Section  
U.S. Army Corps of Engineers, Wilmington  
Post Office Box 1890  
Wilmington, North Carolina 28402-1890  
Tel: (910) 251-4926  
Fax: (910) 251-4744  
Email: [ronald.g.fascher@saw02.usace.army.mil](mailto:ronald.g.fascher@saw02.usace.army.mil)  
Internet: <http://www.saw.usace.army.mil/floodplain/Challenge%201.htm>

## **FORESTRY**

### **Forestry Incentives Program**

U.S. Department of Agriculture  
Natural Resources Conservation Service  
P.O. Box 2890  
Washington, DC 20013  
Tel: (202) 720-6521  
Email: [robert.molleur@usda.gov](mailto:robert.molleur@usda.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/forestryi.html>

### **Cooperative Forestry Assistance Programs**

U.S. Department of Agriculture  
Forest Service, State and Private Forestry  
P.O. Box 96090  
Washington, DC 20090-6090  
Tel: (202) 205-1657  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/forestry.html>

### **Forest Legacy Program**

Rhode Island Department of Environmental Management  
Division of Forest Environment  
1037 Hartford Pike  
North Scituate, RI 02857  
Tel: (401) 647-3367 Paul Ricard, Coordinator  
Email: [pricard@dem.state.ri.us](mailto:pricard@dem.state.ri.us)  
Internet: <http://www.state.ri.us/dem/programs/bnatres/forest/flpinfo.htm>

## **HABITAT RESTORATION AND WILDLIFE PROTECTION**

### **Wildlife Habitat Incentives Program**

U.S. Department of Agriculture  
Natural Resources Conservation Service  
P.O. Box 2890  
Washington, DC 20013-2890  
Tel: (202) 720-3534  
Email: [leslie.deavers@usda.gov](mailto:leslie.deavers@usda.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/wildlife.html>

### **Partners for Fish and Wildlife Program**

U.S. Department of the Interior  
U.S. Fish and Wildlife Service  
Branch of Habitat Restoration, Division of Habitat Conservation  
4401 North Fairfax Drive, Room 400  
Arlington, VA 22203  
Tel: (703) 358-2201  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/fishwildlife.html>



**Wildlife Conservation  
and Appreciation Program**

U.S. Department of the Interior  
U.S. Fish and Wildlife Service  
Division of Federal Aid  
4401 North Fairfax Drive  
Arlington, VA 22203  
Tel: (703) 358-1852  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/appreciation.html>

**North American Wetlands Conservation Act  
Grants**

U.S. Department of the Interior  
U.S. Fish and Wildlife Service  
North American Waterfowl and Wetlands Office  
(NAWWO)  
4401 North Fairfax Drive, Room 110  
Arlington, VA 22203  
Tel: (703) 358-1784  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/nawetlands.html>

**Five Star Restoration Program**

U.S. Environmental Protection Agency  
Tel: John Pai (202) 566-1350  
Email: [pai.john@epa.gov](mailto:pai.john@epa.gov)  
Internet: <http://www.epa.gov/owow/wetlands/restore/5star/>

**FishAmerica Foundation**

1033 North Fairfax Street, Suite 200  
Alexandria, VA 22314  
Tel: Tom Marshall, Managing Director (703)  
548-6338  
Email: [jdegroff@asafishing.org](mailto:jdegroff@asafishing.org)  
Internet: <http://www.asafishing.org/content/conservation/fishamerica/>

**Norcross Wildlife Foundation**

P.O. Box 269  
Wales, MA 01081  
Tel: Richard Reagan, Managing Director NY  
Office (212) 362-4831  
Email: [norcross\\_wf\\_po@prodigy.net](mailto:norcross_wf_po@prodigy.net)  
Internet: <http://www.norcrossws.org/Foundmain.html>

**The Orvis Company**

Conservation Program Historic  
Route 7A  
Manchester, VT 05254  
Email: [shadrinr@orvis.com](mailto:shadrinr@orvis.com)

**Wildlife Forever**

12301 Whitewater Drive, Suite 210  
Minnetonka, MN 55343  
Tel: David Fredrick, Grant and Education Specialist (612) 936-0605  
Email: [info@wildlife forever.org](mailto:info@wildlife forever.org)  
Internet: <http://www.wildlife forever.org/grants.html>

**Fuller Foundation**

P.O. Box 461  
Rye Beach, NH 03871  
Internet: <http://www.agmconnect.org/fuller1.html>

**Bafflin Foundation**

c/o Hinckley, Allen & Snyder  
1500 Fleet Center  
Providence, RI 02903  
Tel: (401) 274-2000

**Gilbert and Ildiko Butler Foundation**

Butler Capital Corporation  
767 Fifth Avenue, Sixth Floor  
New York, NY 10153

Tel: (212) 989-0606

**Davis Conservation Foundation**

4 Fundy Road  
Falmouth, ME 04105  
Tel: Nancy Winslow, Executive Director (207)  
781-5504

**The Prospect Hill Foundation**

99 Park Avenue, Suite 2220  
New York, NY 10016  
Tel: Constance Eisman, Executive Director (212)  
370-1165

**The Acorn Foundation**

Common Counsel Foundation  
1221 Preservation Park Way  
Oakland, CA 94612-1206  
Tel: (510) 834-2995  
Fax: (510) 834-2998  
Email: [ccounsel@igc.org](mailto:ccounsel@igc.org)  
Internet: <http://www.commoncounsel.org/pages/foundation.html#acorn>

**HAZARDOUS WASTE CONTROL**

**Pesticide Environmental Stewardship Grants**

U.S. Environmental Protection Agency  
Office of Prevention, Pesticides, and Toxic  
Substances  
Office of Pesticides, PESP (7511C)  
Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460  
Tel: (703) 308-7035  
Email: [pestp.info@epa.gov](mailto:pestp.info@epa.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/pesticide.html>

**Superfund Technical Assistance Grants for Citizen Groups at Priority Sites**

U.S. Environmental Protection Agency  
Office of Emergency and Remedial Response  
Community Involvement and Outreach Center  
(5204G)

Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460

Tel: (703) 603-8889

Hotline: (800) 424-9346

Email: [epahotline@bah.com](mailto:epahotline@bah.com)

Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/superfund.html>

**Chemical Emergency Preparedness and Prevention Technical Assistance Grants**

U.S. Environmental Protection Agency  
Chemical Emergency Preparedness and Prevention  
Office (CEPPO)

Office of Solid Waste and Emergency Response  
(5104)

Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460

Tel: (202) 260-0030

Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/chem.html>

**Hazard Mitigation Grant Program**

Federal Emergency Management Agency  
Mitigation Directorate

500 C Street, SW

Washington, DC 20472

Tel: (202) 646-4621

Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/hazard.html>

**Jessie Smith Noyes Foundation**

6 East 39<sup>th</sup> Street, 12<sup>th</sup> Floor  
New York, NY 10016

Tel: Stephen Viederman, President (212) 684-6577

Tel: Victor DeLuca, Sustainable Agriculture Program Director (212) 684-6577

Email: [noyes@noyes.org](mailto:noyes@noyes.org)

Internet: <http://www.noyes.org/>

**Unitarian Universalist Veatch Program at Shelter Rock**

48 Shelter Rock Road

Manhasset, NY 11030

Tel: Marjorie Fine, Executive Director (516)

627-6560

Fax: (516) 627-6596

Email: [uucsr@uucsr.org](mailto:uucsr@uucsr.org)

Internet: [http://www.uucsr.org/veatch/about\\_Veatch.htm](http://www.uucsr.org/veatch/about_Veatch.htm)

**The Acorn Foundation**

Common Counsel Foundation

1221 Preservation Park Way

Oakland, CA 94612-1206

Tel: (510) 834-2995

Fax: (510) 834-2998

Email: [ccounsel@igc.org](mailto:ccounsel@igc.org)

Internet: <http://www.commoncounsel.org/pages/foundation.html#acorn>

**HISTORIC, CULTURAL, SCENIC, AND RECREATIONAL RESOURCES**

**Save America's Treasures, Historic Property Projects**

National Park Service

Tel: (202) 343-9570

Email: [NPS\\_Treasures@nps.gov](mailto:NPS_Treasures@nps.gov)

Internet: [www2.cr.nps.gov/treasures/](http://www2.cr.nps.gov/treasures/)

**National Scenic Byways Grants**

Federal Highway Administration

Tel: (800) 429-9297

Email: [rob.draper@fhwa.dot.gov](mailto:rob.draper@fhwa.dot.gov)

Internet: [http://www.byways.org/contact\\_us.html](http://www.byways.org/contact_us.html)

**Rhode Island Greenways, Land Acquisition, and Bikeway Development Grants Program**

Rhode Island Greenways Council

Rhode Island Department of Environmental Management

Division of Planning and Development

235 Promenade Street

Providence, RI 02908

Tel: (401) 222-2776

Email: [lprimian@dem.state.ri.us](mailto:lprimian@dem.state.ri.us)

Internet: <http://www.state.ri.us/dem/programs/bpoladm/plandev/grants.htm>

**Trails Advisory Committee Trail Improvement Grant Program**

Rhode Island Trails Advisory Committee

Rhode Island Department of Environmental Management

Division of Planning and Development

235 Promenade Street

Providence, RI 02908

Tel: (401) 222-2776

Email: [lprimian@dem.state.ri.us](mailto:lprimian@dem.state.ri.us)

Internet: <http://www.state.ri.us/dem/programs/bpoladm/plandev/grants.htm>

**The Dunn Foundation**

333 Strawberry Field Road

Warwick, RI 02886

Tel: (401) 941-3009

Email: [dunnfndn@tiac.net](mailto:dunnfndn@tiac.net)

Internet: <http://www.dunnfoundation.org/>



**Ellis L. Phillips Foundation**

233 Commonwealth Avenue, #2

Boston, MA 02116

Tel: (617) 424-7607

Email: [elpfdntn@gis.net](mailto:elpfdntn@gis.net)

Internet: <http://www.ellisphillipsfndn.org/>

**Alletta Morris McBean Charitable Trust**

100 California Street, Suite 744

San Francisco, CA 94111

Tel: (650) 558-8480

Fax: (605) 558-8481

Email: [McBeanProperties@worldnet.att.net](mailto:McBeanProperties@worldnet.att.net)

**The Van Beuren Foundation**

c/o Ms. Barbara van Beuren, Executive Director

P.O. Box 4098

Middletown, RI 02842

Tel: (401) 846-8167

Fax: (401) 849-6859

Email: [vBCFnd@aol.com](mailto:vBCFnd@aol.com)

Internet: <http://www.vbcf.net/>

**Sunny and Abe Rosenberg Foundation, Inc.**

950 Third Avenue, 23rd Floor

New York, New York 10022

Tel: Charles P. McLimans, Executive Director

(212) 755-5390 ex. 314

Email:

[INFO@ROSENBERGFOUNDATION.ORG](mailto:INFO@ROSENBERGFOUNDATION.ORG)

Internet: <http://www.rosenbergfoundation.org/>

**Eastman Kodak American Greenways Awards**

The Conservation Fund

1800 North Kent Street, Suite 1120

Arlington, Virginia 22209

Tel: (703) 525-6300

Fax: (703) 525-4610

Internet: <http://www.conservationfund.org/>

[conservation/](#)

**Historical Preservation Loan Fund**

Rhode Island Historic Preservation and Heritage  
Commission

Old State House

150 Benefit Street

Providence, RI 02903

Tel: (401) 222-2678

Fax: (401) 222-2968

Email: [info@rihphc.state.ri.us](mailto:info@rihphc.state.ri.us)

Internet: <http://www.rihphc.state.ri.us/fin.html>

**Local Preservation: Certified Local Government Programs**

Rhode Island Historical Preservation & Heritage  
Commission

Old State House

150 Benefit Street

Providence, Rhode Island 02903

Tel: Ms. Sharon Allison CLG Coordinator (401)  
222-4131

Email: [sallison@rihphc.state.ri.us](mailto:sallison@rihphc.state.ri.us)

Internet: [http://grants.cr.nps.gov/CLGs/CLG\\_Search.cfm](http://grants.cr.nps.gov/CLGs/CLG_Search.cfm)

**National Trust for Historic Preservation**

1785 Massachusetts Ave., NW

Washington, DC 20036

Tel: (202) 588-6000

Internet: <http://www.nthp.org/help/grants.html>

**LAND ACQUISITION / OPEN SPACE****Farmland Protection Program**

Natural Resources Conservation Service

Tel: Denise C. Coleman, National FPP Manager  
(202) 720-9476

Email: [denise\\_c.coleman@usda.gov](mailto:denise_c.coleman@usda.gov)

Internet: <http://www.nrcs.usda.gov/programs/fpp/>

**Natural Heritage Preservation Commission  
Open Space Grants**

Natural Heritage Preservation Commission

Rhode Island Department of Environmental Man-  
agement

Division of Planning and Development

235 Promenade Street

Providence, RI 02908

Tel: (401) 222-2776 ext. 4301

Internet: <http://www.state.ri.us/dem/programs/bpoladm/plandev/grants.htm>

**Forest Legacy Program**

Rhode Island Department of Environmental Man-  
agement

Division of Forest Environment

1037 Hartford Pike

North Scituate, RI 02857

Tel: (401) 647-3367 Paul Ricard, Coordinator

Email: [pricard@dem.state.ri.us](mailto:pricard@dem.state.ri.us)

Internet: <http://www.state.ri.us/dem/programs/bnatres/forest/flpinfo.htm>

**Rhode Island Greenways, Land Acquisition,  
and Bikeway Development Grants Program**

Rhode Island Greenways Council

Rhode Island Department of Environmental Man-  
agement

Division of Planning and Development

235 Promenade Street

Providence, RI 02908

Tel: (401) 222-2776

Email: [lprimian@dem.state.ri.us](mailto:lprimian@dem.state.ri.us)

Internet: <http://www.state.ri.us/dem/programs/bpoladm/plandev/grants.htm>

**Trails Advisory Committee Trail Improvement Grant Program**

Rhode Island Trails Advisory Committee  
Rhode Island Department of Environmental Management  
Division of Planning and Development  
235 Promenade Street  
Providence, RI 02908  
Tel: (401) 222-2776  
Email: [lprimian@dem.state.ri.us](mailto:lprimian@dem.state.ri.us)  
Internet: <http://www.state.ri.us/dem/programs/bpoladm/plandev/grants.htm>

**Agricultural Land Preservation Program**

Rhode Island Department of Environmental Management  
235 Promenade Street  
Providence, RI 02908-5767  
Tel: (401) 222-2781  
Fax: (401) 222-6047

**Fields Pond Foundation Inc.**

5 Turner Street  
P.O. Box 540667  
Waltham, MA 02454-0667  
Tel: (781) 899-9990  
Fax: (781) 899-2819  
Email: [info@fieldspond.org](mailto:info@fieldspond.org)  
Internet: <http://www.fieldspond.org/>

**Merck Family Fund**

303 Adams Street  
Milton, MA 02186  
Tel: Jenny Russell, Executive Director (617) 696-3580  
Fax: (617) 696-7262  
Email: [merck@merckff.org](mailto:merck@merckff.org)  
Internet: <http://www.merckff.org/>

**Champlin Foundations**

The Summit North  
300 Centerville Road, Suite 3008  
Warwick, RI 02886  
Tel: David King (401) 736-0370  
Fax: (401) 736-7248  
Email: [champlinfdns@worldnet.att.net](mailto:champlinfdns@worldnet.att.net)  
Internet: <http://fdncenter.org/grantmaker/champlin/>

**The Van Beuren Foundation**

c/o Ms. Barbara van Beuren, Executive Director  
P.O. Box 4098  
Middletown, RI 02842  
Tel: (401) 846-8167  
Fax: (401) 849-6859  
Email: [vBCFnd@aol.com](mailto:vBCFnd@aol.com)  
Internet: <http://www.vbcf.net/>

**NATURAL RESOURCE PROTECTION**

**Sustainable Development Challenge Grants**

U.S. Environmental Protection Agency  
SDCG, Office of the Administrator (MC 1306)  
Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460  
Tel: (202) 260-6812  
Email: [desautels.lynn@epa.gov](mailto:desautels.lynn@epa.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/sustainable.html>

**The Conservation Alliance**

c/o Patagonia, Inc.  
259 W. Santa Clara Street  
Ventura, CA 93001  
Tel: John Sterling (805) 643-8616  
Internet: <http://www.conservationalliance.com/>

**Jessie B. Cox Charitable Trust**

Hemenway & Barnes  
60 State Street  
Boston, MA 02109-1899  
Tel: (617) 557-9775  
Email: [dso@hembar.com](mailto:dso@hembar.com)  
Internet: <http://www.agmconnect.org/cox.html>

**Arthur B. Schultz Foundation**

P.O. Box 7275  
Incline Village, Nevada 89452  
Tel: (775) 831-5104  
Fax: (775) 831-6301  
Email: [info@absfoundation.org](mailto:info@absfoundation.org)  
Internet: <http://www.absfoundation.org>

**The Boston Foundation**

Fund for Preservation of Wildlife and Natural Areas  
1 Boston Place, 24th Floor  
Boston, MA 02108  
Tel: (617) 723-7415  
Fax: (617) 589-3616  
Email: [nfo@tbf.org](mailto:nfo@tbf.org)  
Internet: <http://www.tbf.org/fund/fpwna.html>

**William P. Wharton Trust**

c/o Choate, Hall, and Stewart  
Exchange Place  
52 State Street  
Boston, MA 02109  
Tel: Pearl E. Bell, Estate and Trust Administrator (617) 248-5000

**Doris Duke Charitable Foundation**

650 Fifth Avenue, 19th Floor  
New York, New York 10019  
Internet: <http://fdncenter.org/grantmaker/dorisduke/environment.html>



**New England Biolabs Foundation**

Martine Kellett, Executive Director  
32 Tozer Road  
Beverly, MA 01915  
Tel: (978) 927-2404  
Fax: (978) 921-1350  
Email: [cataldo@nebf.org](mailto:cataldo@nebf.org)  
Internet: <http://www.nebf.org/>

**Raytheon Company**

141 Spring Street  
Lexington, MA 02421  
Tel: (781) 860-2753  
Email: [communityrelations@raytheon.com](mailto:communityrelations@raytheon.com)  
Internet: <http://www.raytheon.com/community/mission/index.html>

**Farmland Protection Program**

Natural Resources Conservation Service  
Tel: Denise C. Coleman, National FPP Manager  
(202) 720-9476  
Email: [denise\\_c.coleman@usda.gov](mailto:denise_c.coleman@usda.gov)  
Internet: <http://www.nrcs.usda.gov/programs/fpp/>

**WATER QUALITY AND NONPOINT  
SOURCE POLLUTION CONTROL****Water Quality Cooperative Agreements**

U.S. Environmental Protection Agency  
Office of Wastewater Management (4203)  
Ariel Rios Bldg., 1200 Pennsylvania Ave., NW  
Washington, DC 20460  
Tel: (202) 260-9545  
Email: [benroth.barry@epa.gov](mailto:benroth.barry@epa.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/wqagree.html>

**Nonpoint Source Pollution (319) Program,  
Request for Proposals (RFP)**

Rhode Island Department of Environmental Management  
Office of Water Resources  
235 Promenade Street  
Providence, RI 02908  
Tel: Jim Riordan (401) 222-4700 ext. 4421  
Email: [jriordan@dem.state.ri.us](mailto:jriordan@dem.state.ri.us)  
Internet:  
<http://www.state.ri.us/dem/programs/benviron/water/finance/non/index.htm>

**Island Foundation**

589 Mill Street  
Marion, MA 02738  
Tel: Julie A. Early (508) 748-2809  
Fax: (508) 748-0991  
Email: [jeary@capecod.net](mailto:jeary@capecod.net)

**Corporate Community Relations**

Raytheon Company  
Executive Offices  
141 Spring Street  
Lexington, MA 02421  
Tel: Beverly Morgan-Welch (781) 860-2753  
Email: [corporatecontributions@raytheon.com](mailto:corporatecontributions@raytheon.com)  
Internet: <http://www.raytheon.com/community/mission/index.html>

**WATERSHED AND WATER RESOURCE  
PROTECTION****Watershed Assistance Grants**

U.S. Environmental Protection Agency  
Office of Wetlands, Oceans and Watersheds  
(4501F)  
Ariel Rios Bldg., 1200 Pennsylvania Ave., NW

Washington, DC 20460  
Tel: (202) 260-4538  
Email: [cole.james@epa.gov](mailto:cole.james@epa.gov)  
Internet: <http://www.epa.gov/owow/watershed/wacademy/fund/wag.html>

**PowerBar, Inc.**

Attn: Direct Impact on Rivers and Trails (D.I.R.T.)  
Program  
2150 Shattuck Avenue  
Berkeley, CA 94704  
Tel: 1-800-58-POWER  
Internet: <http://www.powerbar.com/whoWeAre/dirt/index.asp>

**The Cricket Foundation**

Exchange Place, Site 2200  
Boston, MA 02109  
Tel: George Butterworth III, Esq., Counsel (617)  
570-1130

**Sweet Water Trust**

77 Central Street, Fifth Floor  
Boston, MA 02109  
Tel: Sigrid Pickering, Program Director (617)  
482-5998  
Fax: (617) 482-4844  
Email: [watersweet@aol.com](mailto:watersweet@aol.com)  
Internet: <http://www.sweetwatertrust.org/>

## Appendix 3: Priorities for Improving Small Craft Access and Controlling Erosion on the Wood and Pawcatuck Rivers

### Includes Keys to Map of the Watershed

*Prepared by the  
Wood-Pawcatuck Watershed Association  
(the designated Watershed Council for the  
Pawcatuck Watershed)*

*Reviewed by  
Rhode Island Canoe/Kayak Association  
Trout Unlimited*

Following are recommendations of the Wood-Pawcatuck Watershed Association for **priority recreational access and erosion control** at public access areas along the Wood and Pawcatuck Rivers. Items are listed by town in order of priority. Many relate to both recreation and natural resource protection.

Priorities were set by evaluating needs for access, improved safety, damage mitigation, and a preliminary evaluation of feasibility of improvement.

#### South Kingstown:

1. Improve the aesthetics and control poison ivy at Taylor's Landing. **(SK2A)**
2. Acquire property near mouth of pond to develop canoe access point on Hundred Acre Pond. **(SK3A)**

#### Exeter:

1. Develop and install erosion controls along the banks of the Wood River below Rt. 165 used for fishing access.

2. Identify areas appropriate for canoe camping sites.

#### Richmond:

1. Acquire property above Lower Shannock Falls that includes the abandoned building. Remove building and develop canoe access point (Pawcatuck). **(R2A)**
2. Install erosion controls at the access downstream of Lower Shannock Falls (Pawcatuck). **(R2A)**
3. Improve access, provide parking and control erosion below Woodville Dam (Wood). **(RH3A)**
4. Acquire property at King's Factory Road on the Richmond side to develop canoe access point with parking (Pawcatuck). **(RC1A)**
5. Acquire property at or near Rt. 112, Carolina, to develop canoe access and parking (Pawcatuck). **(R5A)**
6. Acquire property to improve access at the Old Stone Dam near Switch Road. **(H2A)**

#### Hopkinton:

1. Improve access downstream of the Barberville Dam with erosion controls and better parking (Wood). **(RH1A)**
2. Improve access below Alton Dam with steps and other erosion controls. Provide signs on Rt. 91 informing drivers that pedestrians carrying boats will be crossing

the road. Paint cross walk on the road. (Wood) **(H4A)**

3. Improve access above Woodville Dam with erosion controls. Provide parking. (Wood) **(RH3A)**
4. Acquire property at Skunk Hill Road to develop better access and parking **(RH2A)**
5. Improve aesthetics at the Switch Road access. (Wood) **(H3A)**
6. Improve portage around dam and fish ladder at the Bradford Dye Association's dam with erosion controls and more room to maneuver boats. If possible, acquire land to provide better access below dam. (Pawcatuck) **(HW3A)**
7. Develop access area off Chase Hill Road, a new DEM property.
8. Improve access below the Old Stone Dam on Mechanic Street. **(H2A)**

#### Charlestown (all on the Pawcatuck):

1. Acquire property at Burdickville Road to develop canoe access points upstream and downstream. Remove broken dam so that there would be no need to portage. **(HC1A)**
2. Remove dam at Kenyon Industries. **(C3A)**
3. Improve portage around Horseshoe Dam in Shannock. Acquire property to widen takeout point near falls. Put up signs on Old Shannock Road to warn drivers about



pedestrians crossing with boats. Paint in a crosswalk. Improve the parking area below the falls. Install erosion controls for the downstream access. **(C2A)**

4. Acquire the property at the corner of Tall Timbers Road and Hilltop Drive to develop new canoe access park. **(C1A)**

#### **Westerly (all on the Pawcatuck)**

1. Acquire the property at the Potter Hill Mill. Remove the mill to develop a canoe access/river park, including a parking area. **(HW2A)**
2. Acquire property above the Potter Hill Mill Dam to develop a canoe access point. Put in a portage route to the downstream access. Put up signs on Potter Hill Road to warn drivers about pedestrians crossing with boats. Paint in a crosswalk. **(HW2A)**
3. Remove dam at White Rock. **(WS2A)**
4. Improve portage point at Stillmanville. **(WS3A)**
5. Improve access at Canal Street with erosion controls, cleanup, and signs. **(W1A)**

#### **Other suggestions:**

1. Provide signs on major roads directing people to the river access points.
2. Have crosswalks painted onto all roads where there is a portage across the road. Have signs on the roads warning motorists of canoers crossing the roads.
3. Provide signs on the road side of all

bridges with the name of the river that people are crossing.

4. Provide signs at the water side on all bridges with the name of the road so that paddlers know where they are on the river.

#### **List of Canoe and Fishing Access Points on the Wood and Pawcatuck Rivers**

Please note abbreviations: US means Up Stream; DS means Down Stream; RR means River Right; LR means River Left. As you are heading DS, the RR will be on your Right and RL will be on your left. These are listed in order from up- to downstream.

#### **WOOD RIVER:**

1. Quonset Hut, Rt. 165, **Exeter**. Good access on both sides of river. New steps for erosion control put in 1999 by Trout Unlimited. Plenty of parking. Better erosion controls need to be installed along the banks bordered by fisherman trails. Arcadia Management Area, State of RI property. **(E1A)**
2. Deep Pond and The Pines, Blitzkreig Trail off Arcadia Rd, **Hopkinton**. Access RR. New steps for erosion control put in by Trout Unlimited 1999 make it a little difficult to put canoe in. Good fishing access. Plenty of parking. Long ride down rutted dirt road. State of RI property. **(E2A, E3A)**
3. Barberville Dam, (WPWA headquarters) Arcadia Rd, **Exeter/Hopkinton**. New

State handicap accessible fishing pier and canoe access, US of dam, RR, Hopkinton. Not enough parking. US RL is the old public access on State land. It is a tough haul out onto the bank, then over a guard rail and across the road. Many people tempted to put in near the dam and run the rapids underneath the bridge. DS access both RR and RL need improvement. Suggest designating DS RR as the access point and improving trail. **(RH1A)**.

4. Skunk Hill Road Bridge, **Richmond/Hopkinton**. Access US of bridge, RR, on Hopkinton side. Not maintained. Tough haul up bank. No parking. Suggest purchase some adjoining land and improve site. **(RH2A)**
5. Wyoming Fishing Access, Rt. 3/138, **Richmond**. Access RL US of dam. Good beach access, plenty of parking. DS access is poor but rarely used because it is almost never canoeable due to low water and large rocks. State of RI property. **(R1A)**
6. Hope Valley, Main St., **Hopkinton**. Located behind the Chariho Little League Fields. Good access, good parking. Little used by canoeist because of the tough portages DS. **(H1A)**
7. The Old Stone Dam, **Hopkinton**. Access DS of the dam is virtually nonexistent. There is limited parking US RR. Canoeists must take out RR, and portage over road, over guardrail, down practically non-existent trail covered with poison ivy. Scenic and historic area. **(H2A)**

8. Switch Rd, near Rt. 95 overpass, **Hopkinton**. Access RR. Good access, good parking. Unsightly area. Aesthetics need improvement. Needs signs near road. (H3A)
9. Woodville Dam, Woodville-Alton Road, **Richmond/Hopkinton**. US access on RR, Hopkinton. Tough haul over a couple of large stone steps. DS access on RL, Richmond. To portage, canoeist need to haul boat over guard rail, diagonally across bridge, over guard rail again; then down steep embankment. No adequate parking on street. Both access points need to be cleared, widened, and improved. Need to provide parking, signage, and safe portage. (RH3A)
10. Alton Pond, Rt. 91, **Hopkinton**. Access on RR, US of dam. Good access, plenty of parking. DS access on RR across Rt. 91. Tough haul from parking area, across busy road, over guard rail, and down steep embankment. Need to improve trail down to put-in and access area itself. Need to post signs so that drivers are aware of canoeists crossing the road. State property. (H4A)

#### PAWCATUCK RIVER:

1. Hundred Acre Pond, **South Kingstown**. Currently there is no public access to the pond. Canoeist tend to use the bridge on Hundred Acre Pond Road, which is inadequate. It would be nice to have a public access on the pond because it is the head-

waters of the Pawcatuck River. (SK3A)

2. Taylor's Landing, Rt. 138, **South Kingstown**. Good access, fair amount of parking. Cars can overflow onto Liberty Lane. Beginning section is often overgrown with poison ivy. Unsightly area; aesthetics need improvement. (SK2A)
3. Worden's Pond, Tuckertown Road, **South Kingstown**. Public landing on south side of pond. Long paddle across the pond. Adequate parking and access. (SK1A)
4. Biscuit City Landing, Old Biscuit City Rd, **Richmond**. Access RL. Good parking, good access. State property. To get to this landing canoeists need to take a side stream off the main river. No sign on the river stating this. (R4A)
5. Kenyon Mills dam portage, **Charlestown**. The portage on RL not maintained. Easy portage. Not a takeout. (C3A)
6. Shannock Horseshoe Dam, **Charlestown**. Takeout on RL is not marked and not very wide. Paddlers need to come close to the edge of the dam. It is not maintained. Some parking at the DS access, which needs improvement. Could be a good access point. (C2A)
7. Lower Shannock Falls, Railroad Street, **Richmond**. Take out above the dam is on RR adjacent to an abandoned house, apparently private property. OK access DS. Only street parking. Suggest purchasing property, taking down the house, creating access ramp and perhaps parking.

Access DS needs erosion controls. Area is very unsightly. Needs to be cleaned up. (R2A)

8. Carolina, Rt. 112, **Richmond**. Access on RR, US of bridge. Only take-out before class II rapids. Tough haul up a steep embankment and a lift over a guard rail. No parking, street or otherwise. Needs a better access area and parking. (R5A)
9. Corner of Tall Timbers Rd. and Hilltop Rd., **Charlestown**. Private property; no public access allowed. Would make a very good access point. Plenty of parking, good beach area. Suggest the possibility of acquiring property for that purpose. (C1A)
10. Richmond Fisherman's Landing, Rt. 91, **Richmond**. Good access and parking. Has a broken dam just above put-in. (R3A)
11. King's Factory Road, **Richmond/Charlestown**. No obvious take-out point. Tough haul up steep embankment and over guard rail US, both sides. Some street parking. DS RL is private property. Owners have it roped off. Need to develop netter access site. Suggest US RR. Parking could be just up the road at the old cutoff of King's Factory Rd. (RC1A)
12. Burdickville Dam, Burdickville Road, **Hopkinton/Charlestown**. Access is a narrow strip of land up a steep bank, just before broken dam and just after some private land. This is tough to spot from the water, difficult to take out. Very little on street parking. Suggest looking into pur-

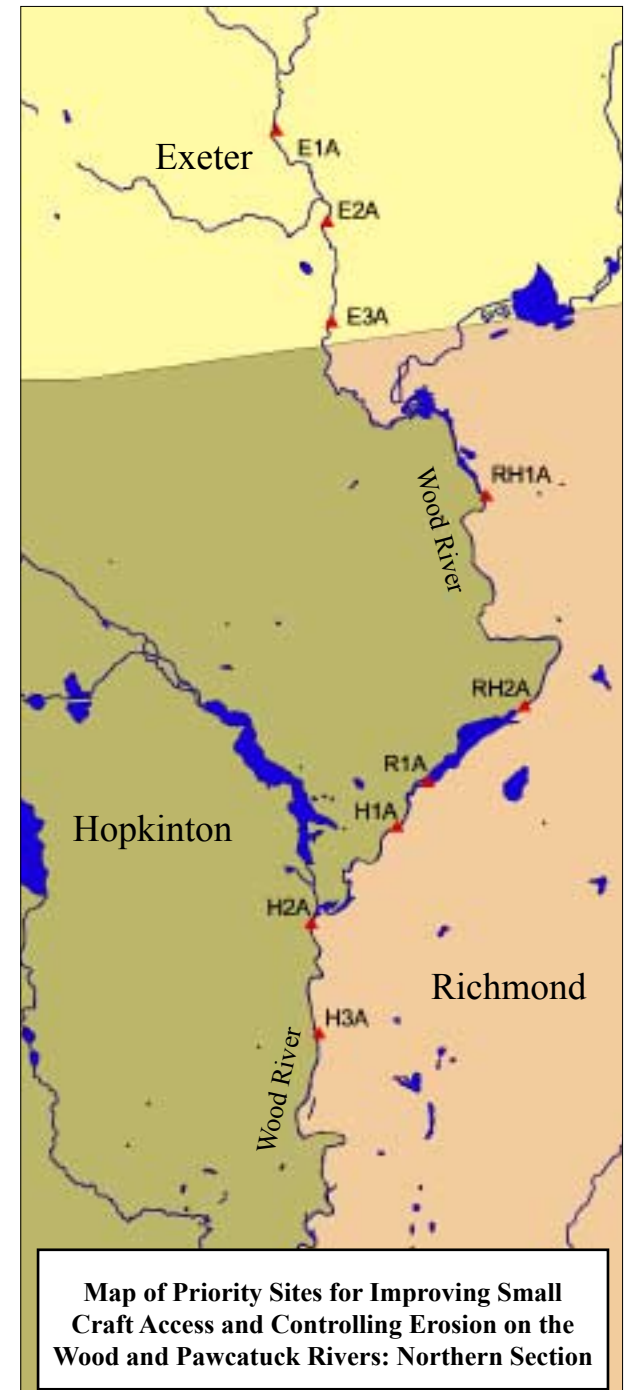


chasing property on RL, either above or below the bridge. Best site would be US. Remove broken dam so that portage would not be necessary. **(HC1A)**

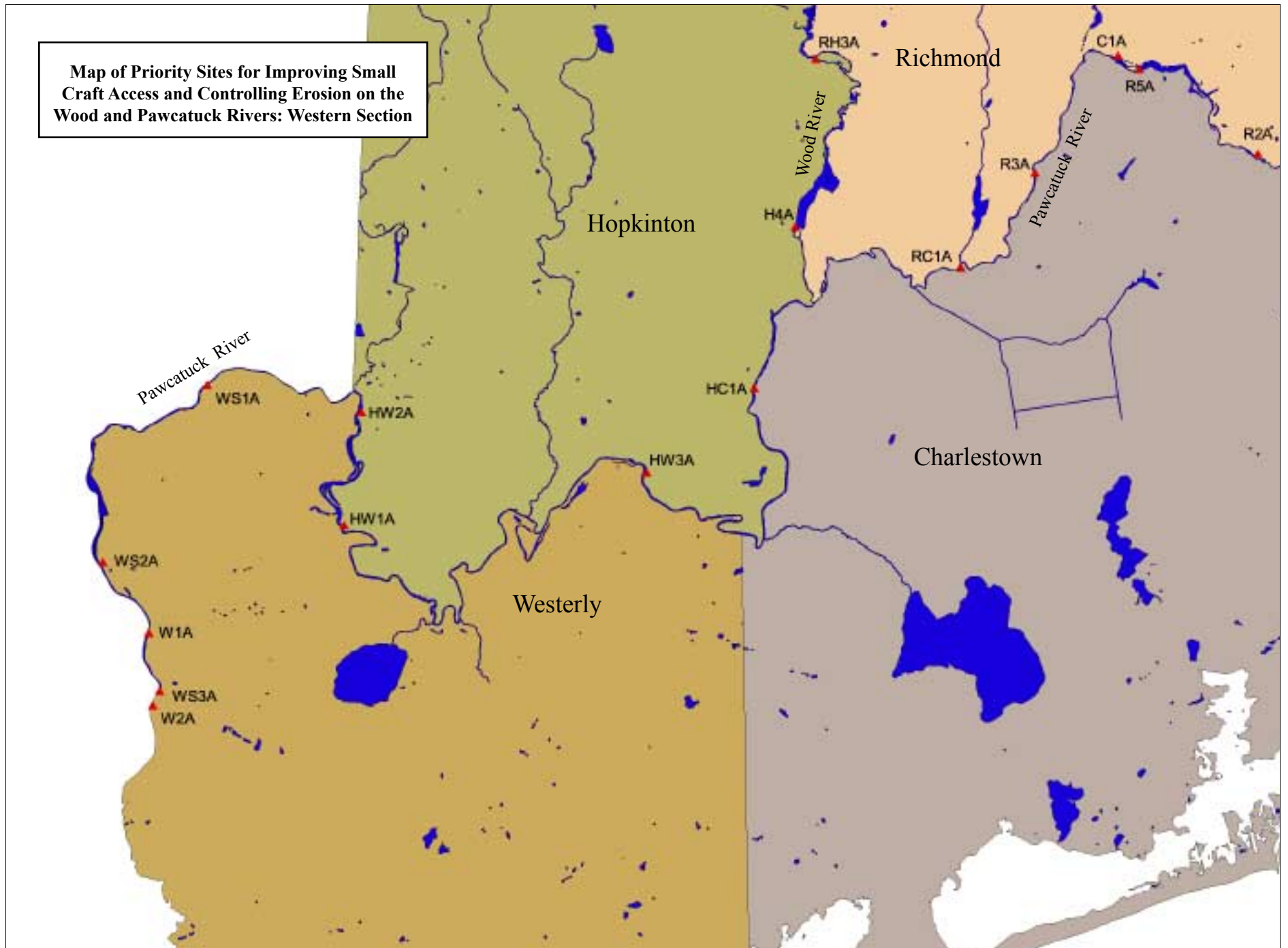
13. Bradford Fishing Access, Rt. 91, **Hopkinton/Westerly**. Takeout on RL, Westerly has good access, good parking, nice grassy area. There is no access DS below the BDA dam. Paddlers must put in to go DS, and then encounter a tough, wet portage around the dam and fish ladder on RR 500 feet downstream. This is private land belonging to BDA that was donated to the state for the fish ladder. Recommend a public access point downstream, perhaps below the fish ladder. **(HW3A)**
14. Chase Hill Road, Hopkinton. Undeveloped access point on recently acquired DEM property. Could be developed into a good takeout point in lieu of the Potter Hill Mill bridge takeout. **(no GPS point)**
15. Potter Hill Dam, Potter Hill Road, **Hopkinton/Westerly**. Public take-out just before dam on RR, Hopkinton, is very difficult. Poor on street parking. With bridge construction on Potter Hill Road, it is nearly impossible to take out. There was no planning by DOT to accommodate boaters. Suggest acquiring property on RL, Westerly, for take-out. Put-in access below dam is in bad condition, narrow and very eroded. Newly installed rocks makes a precipitous put-in. Needs improvement. Town/state should cooperate on acquiring the Potter Hill Mill property, on RL, West-

erly side. Mill could be torn down to turn site into a canoe/fishing park. **(HW2A)**

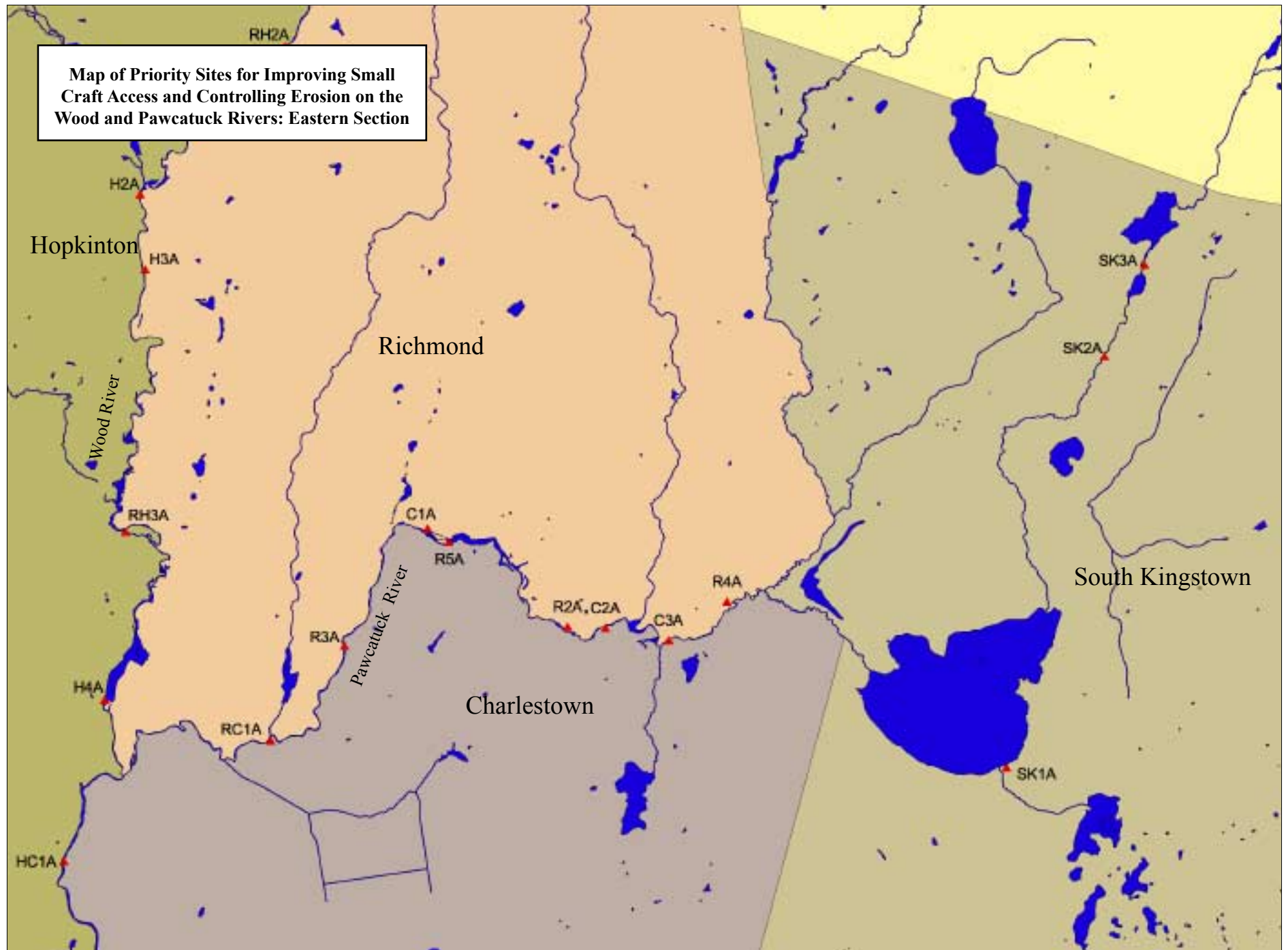
16. Boom Bridge, Boom Bridge Road, **Westerly/Stonington**. No public access at this time. Suggest acquiring land on RR, Stonington, below bridge for access. **(WS1A)**
17. White Rock Dam, off Rt. 2, **Westerly/Stonington**. Portage site around White Rock dam is on private property owned by Wentworth Mold, Inc. Could acquire easement rights to small jut of land for portage and maintain it or remove dam. **(WS2A)**
18. White Rock Fishing Access, White Rock Road, **Westerly**. Good access, good parking. Town of Westerly property down a dirt road off of main street. No signs on street. **(WS2A)**
19. Canal Street access, Canal Street, **Westerly**. Small off street access point. Fair parking. Needs cleaning up, clearing blowdowns, erosion control, signs. **(W1A)**
20. Stillmanville Dam portage, Broad Street, **Westerly/Stonington**. Small jut of land that bypasses Stillmanville dam. This is the only way around the dam, unless paddlers run the broken part of the dam in high water. Could acquire easement on land and maintain or remove dam. **(WS3A)**
21. Westerly Fishing Area, Main Street, **Westerly**. Good access just US of tidal waters. Ample parking. State of RI property. **(W2A)**



Map of Priority Sites for Improving Small Craft Access and Controlling Erosion on the Wood and Pawcatuck Rivers: Western Section







## Appendix 4: Project Volunteers by Town

### Charlestown

Harriet Allen  
Paula Andersen  
Arvid Autio  
Arthur L. Balnini  
Abbie Barber  
Valerie Beaupre  
George Carter  
Denise Costello  
Ann Crawford  
Lisa Daggart  
Vic Dvorak  
Gordon Foer  
Joanne & Richard Friday  
Donna Gardiner  
Frank Gusia  
Kerv Hyland  
Faith LaBossiere  
Jim Lamphere  
Lynn Macalister  
Anna Marciano  
Mike Merner  
Dave & Joann Monk  
Ernest Morreira  
Jim O'Brien  
Ruth Platner  
Noel Rowe  
Carol Thompson  
Charlie Vandemoer  
Cliff Vanover  
Richard Wolke

### Coventry

Carolyn Breene

### Exeter

Ross Aker  
Ed Baker

Helen Buchanan  
Paul Coppola  
Janet Cragan  
Wayne Cross  
Michael DeFrancesco  
Ron DeFrancesco  
William Devanney, DDS  
Donna DiDonato  
Frank DiGregorio  
Allen Douglas  
Scott Douglas  
Rosamond Fisher  
Bob Johnson  
Dick Kenyon  
Andrew Killinger  
Christine Kratt  
Marine Lacouture  
Dr. Susan Littlefield  
Ward McKenna  
Mary Beth McKenna  
Paula & Michael McLaughlin  
Deborah Mechnig  
Laura & Roy Smith  
Kathy Staley  
Ruth A. Stone  
Joe Walsh  
William D. Warner  
Diana Wartoch  
Krista Weller  
Jason Whitford

### Hopkinton

Christine Antaya  
Carol Baker  
Rebecca Blatt  
Glenn Bradfield  
Bob Brunelle  
Harvey Buford  
Nina Rooks Cast

E. Robert Corrigan, Jr.  
Carl Devin  
Joyce Devine  
Alfred DiOrio  
Steve Drainville  
Marilyn Grant  
Richard Gray  
Alexis Heitman  
Scott Bill Hirst  
Bert Sullivan  
Cathy Illezzi  
Eric Kingman  
Robert Matorelli  
Jill Matson  
Katherine Maxwell  
Richard Pilney  
Sarah E. Porter  
Kevin Ryan  
Brian Scott  
Dave Smith  
Ann Smith  
Judith Sposato  
Tom Thompson  
Jim Turek  
Howard Walker  
Majorie Weeden  
Sarah Windsor  
W. Edward Wood

### North Kingstown

Ross Adrian  
Patricia Beauchamp  
Beverly Brewer  
David R. Burnham  
Dan Coxe  
Darlene Crist  
Kenneth C. D'Ambrosio  
Kurt Van Dexter  
Dale M. Grogan

Polly & Mike Hutchinson  
Meg Kerr  
Gidget Loomis  
Dick Pastore  
Robin Porter  
Harriet Powell  
Carol Rogers

### Providence

Stephen Metcalf  
Jenny Pereira  
Don Sharp  
Kay Sheldon

### Richmond

John Fox  
Kevin Gosper  
Michelle Hicks  
Thomas Holberton  
Jeanne Luther  
Lois Morris  
Henry R. Oppenheimer  
Walter Prescott  
Joan R. Thompson  
Patricia Valliera  
Harold Ward

### South Kingstown

Jeanne & Michael Abbott  
James F. Anderson  
Stephen Antoni  
Karen Joy Asher  
Bob Baxter  
Donald Beasley  
Laurie Behr  
Kathleen Bossy  
Marianna Bristol  
Denise Burgess  
Leslie Chouniard



Chris Coleman  
Carole Costanza  
Philip Damicis  
Jacqueline Davies  
Dorothy Devine  
Gail T. Eastwood-Stokes  
Dennis Erkan  
Jean Farely  
Joyce M. Flanagan  
Margie Flanders  
William Gardell  
Cynthia Gleason  
Clyde B. Gordon Jr.  
Martina Graziano  
Susanna Griffin  
Barbara Hackey  
Dale Holberton  
Dianne Hughes  
Clara Johnson  
Russell C. Koaz  
Tony Lachowicz  
Martha MacBurnie  
Jennifer McCann  
Kim McHugh  
Paddy McKeag  
Joanne Pope Melish  
Danna K. Millar  
Jim O'Neil  
Mathias Oppersdorf  
Mary O'Rourke  
Gary Paddock  
Kathy Patric  
Anna F. Prager  
Joanne Riccittelli  
Stephen Rogers  
John Rose  
Pam Rubinoff  
William P. Sheffield  
Loretta J. Smith

W. Michael Sullivan  
Stephen K Swallow  
Patrick Verdier  
Perry Viles  
Karen & Bob Votava  
Andy Webb  
Troy West

#### **West Greenwich**

Blanche Albro  
Roberta Baker  
Michael E. Bartlett  
David S. Berry  
Diane Blaquiere  
Sandra S. Bockes  
Lori A. Boulanger  
Mark D. Boyer  
William G. Bryan  
Robert S. Butler  
Charlene K. Butler  
LuAnn Carpenter  
Jessica St. Vincent  
Donald L. Davis  
Ann M. Dickson  
Mark A. Fortin  
Marilyn & Sandy Graf  
Donald Harrington  
Anne W. Harrington  
Terry Heath  
Richard Huntsman  
Steven Johnson  
Charlotte Jolls  
Paul E. Kaarlschnee  
Adrien R. Knott  
Alyson J. McCann  
Rhonda McLaughlin  
Robert H. Meehan Sr.  
Gail Murray  
Daniel W. Novak

Janet Olsson  
Elsie Oltedale  
Jenny Paquette  
Barbara Reynolds  
Tom Romeo  
Richard J. Sitkus  
Brian C. Tefft  
Mark D. Tourgee  
Joseph T. Unsworth  
Nancy St. Vincent  
Michael Walker  
Cynthia A. Walsh  
Thaylen H. Waltonen  
Brad Ward  
Anneliesa Williams  
Mimi Young  
Robert Zuleger

#### **West Warwick**

Cedric Cushing III

#### **Westerly**

Sharon Eliot Ahern  
Vic Arnold  
Samuel A. Azzinaro  
John Azzinaro  
Kenneth G. Boll  
Andre Boris  
Wayne E. Brusseau Sr.  
Robert E. Cahoone  
Nicholas M. Castagna  
Antoinette Cavanna  
Mario P. Celico  
Robert J. Chiaradio  
Michelle A. Colucci  
Chris Cousins  
Mary Jane DiMaio  
Christopher A. Duhamel  
Nancy Freeman

Robert E. Gingerella, II  
Bruce Goodsell  
Bardes L. Haase  
Edward Haik, Jr.  
Dick Holliday  
Vois Hutton  
Frances Mary Killeen  
C. Lafferty  
M. Ann Lamb  
Mary LeBlanc  
Daniel P. Lenihan  
Robert A. Mandes  
Carol Mars  
Paul J. Marsiglio  
Brian H. McCuin  
Antoine Medeiros  
A. Vero Morrone  
William J. Nieranowski  
Harvey Perry  
James V. Silvestri  
Fraquhar Smith III  
Kenneth J. Sorensen  
Nick Stahl  
Deirdra Storti  
Kathryn Taylor  
Lori Urso  
John A. Vacca